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**AIR FORCE**



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**INITIAL OPERATIONAL TEST AND EVALUATION  
OF ASVAB FORMS 11, 12, AND 13:  
PARALLELISM OF THE NEW FORMS**

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**AIR FORCE SYSTEMS COMMAND  
BROOKS AIR FORCE BASE, TEXAS 78235-5601**

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This report has been reviewed and is approved for publication.

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Manpower and Personnel Division

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19. ABSTRACT (Continue on reverse if necessary and identify by block number) Six new forms of the Armed Services Vocational Aptitude Battery (ASVAB) were developed and implemented on 1 October 1984. Between 1 October and 30 November 1984, these new forms and a reference form were administered to approximately 120,000 applicants to the US Armed Forces. Test data were analyzed to assess the parallelism of the new forms in the total sample of applicants who were tested during October and November 1984 and in separate male and female applicant samples. The distribution of subtest scores, the item statistics, and the interrelationships of the subtest scores were compared across the forms. There was some evidence of lower subtest mean scores on Form 12a, although this difference was not consistent for all subtests. Although results differ between the male and female samples, these differences did not appear to be systematically related to the form being administered and thus were not indicative of a sex-by-test-form interaction.					
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INITIAL OPERATIONAL TEST AND EVALUATION  
OF ASVAB FORMS 11, 12, AND 13:  
PARALLELISM OF THE NEW FORMS

VOLUME II

This volume of the report is divided into four appendices. Appendix A contains plots of the test information curves for each subtest on each form. Appendix B contains plots of the test characteristic functions for each subtest on each form. In Appendices A and B, separate curves are shown based on data from the total, male, and female samples.

Appendix C presents summary descriptive statistics for each subtest and for the AFQT composite. Appendix D shows summary descriptive statistics for standard-score service composites. Appendices C and D also show the data separately for the total, male, and female samples.

APPENDIX A: TEST INFORMATION CURVES

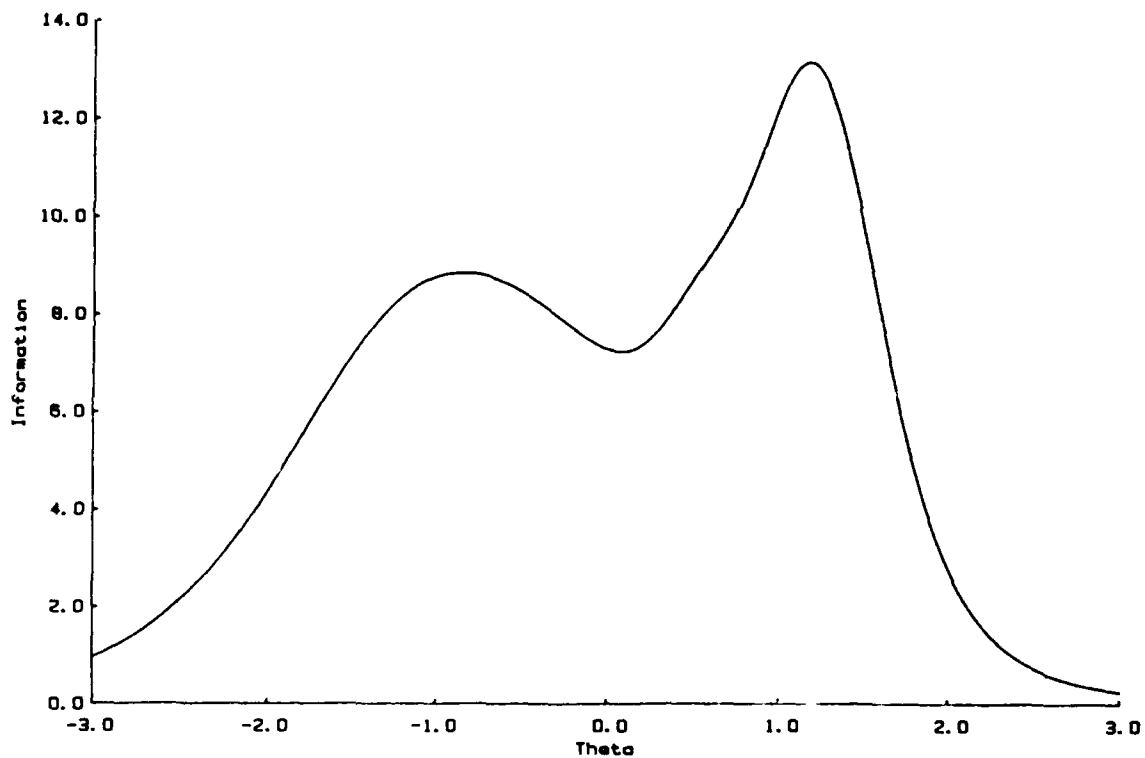


Figure A-1. Test Information Curve for General Science Subtest on ASVAB Form 11a (Total Sample).

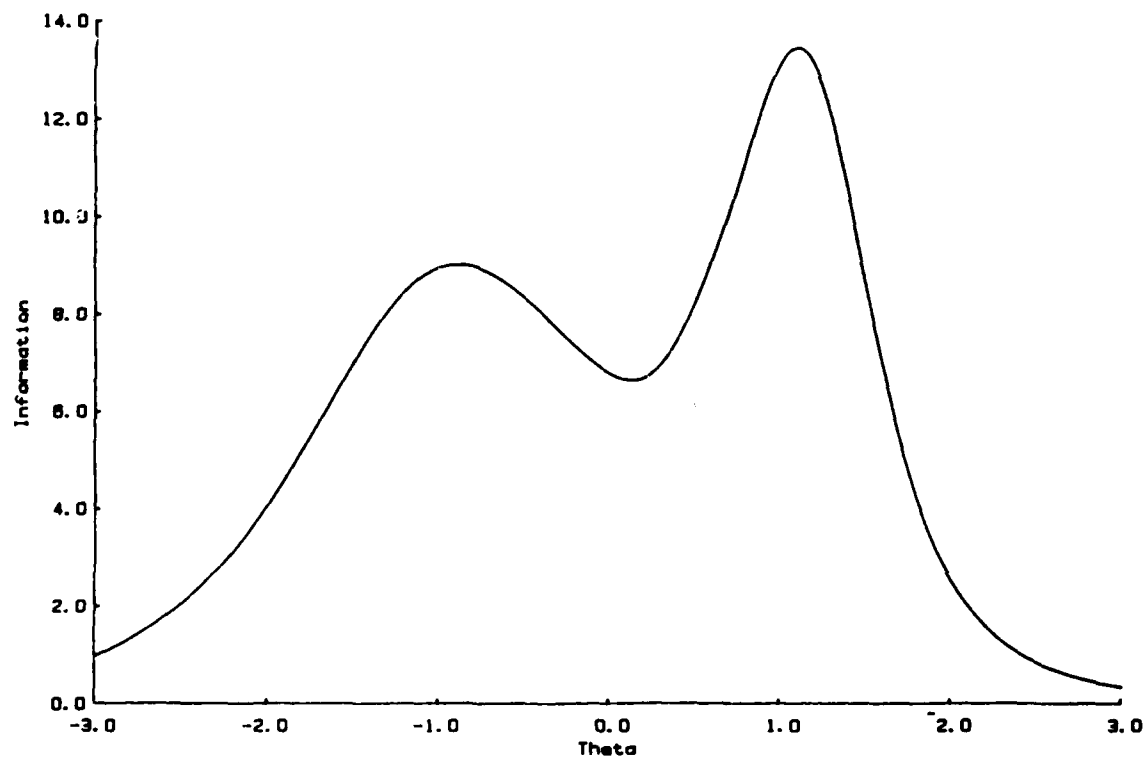


Figure A-2. Test Information Curve for General Science Subtest on ASVAB Form 11b (Total Sample).

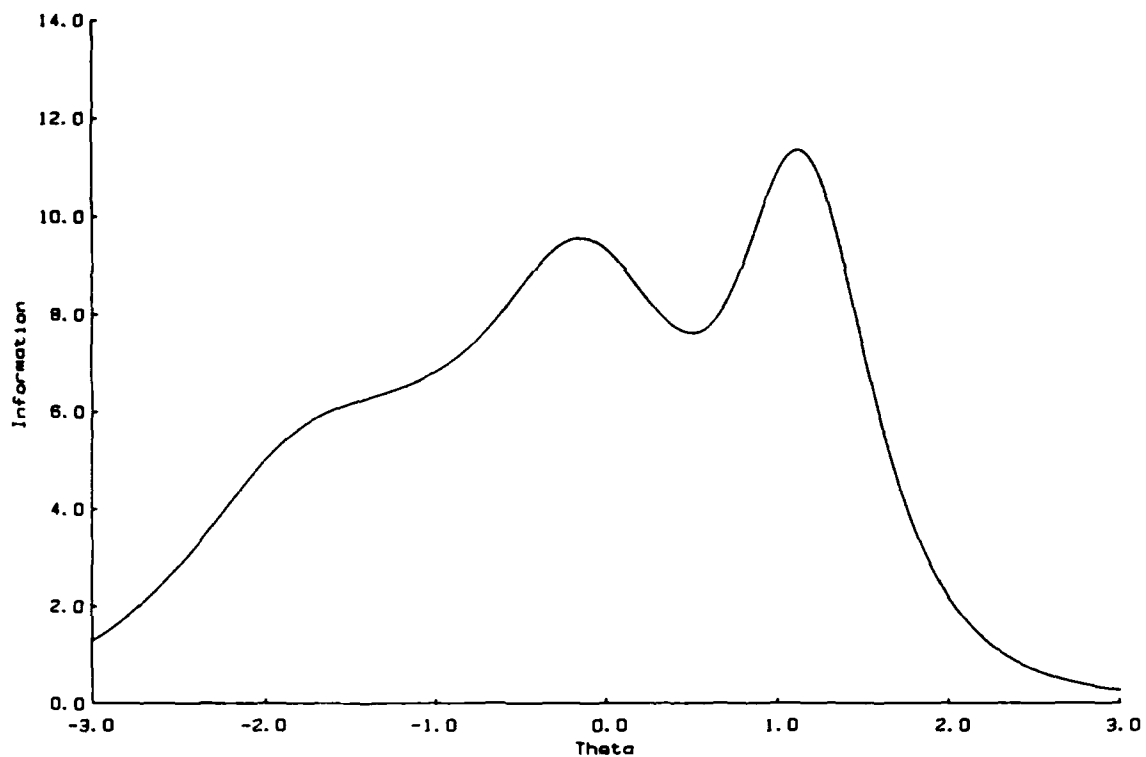


Figure A-3. Test Information Curve for General Science Subtest on ASVAB Form 12a (Total Sample).

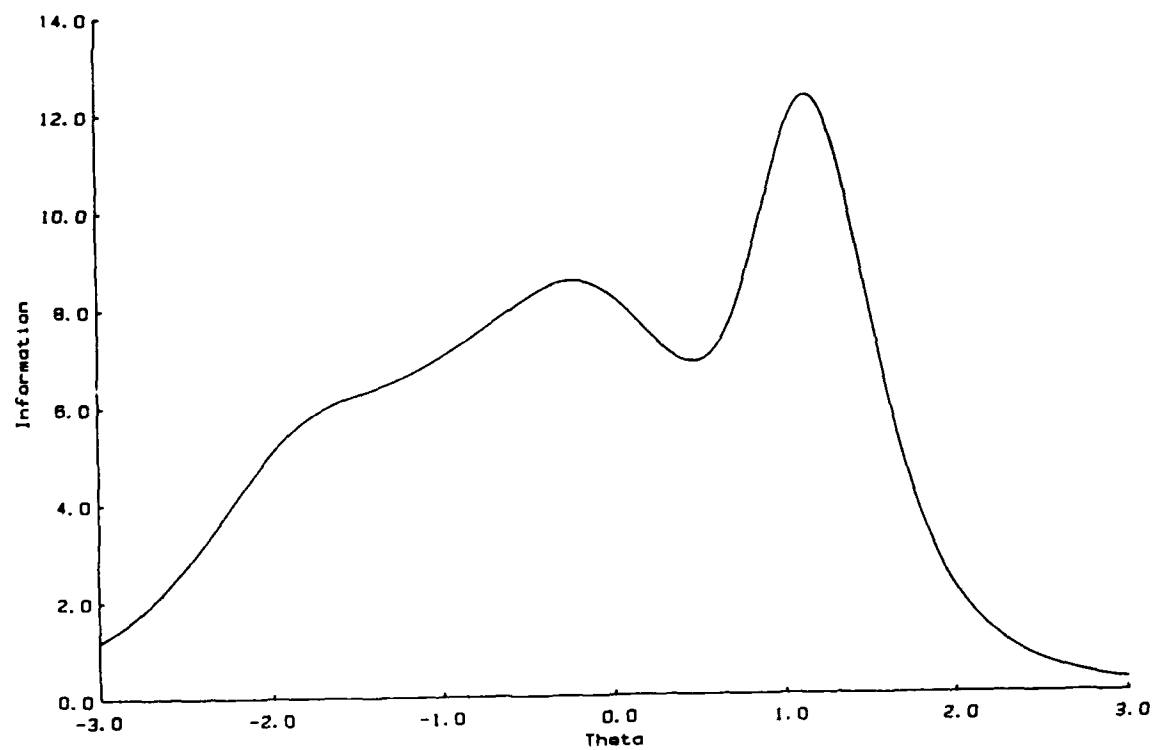


Figure A-4. Test Information Curve for General Science Subtest on ASVAB Form 12b (Total Sample).



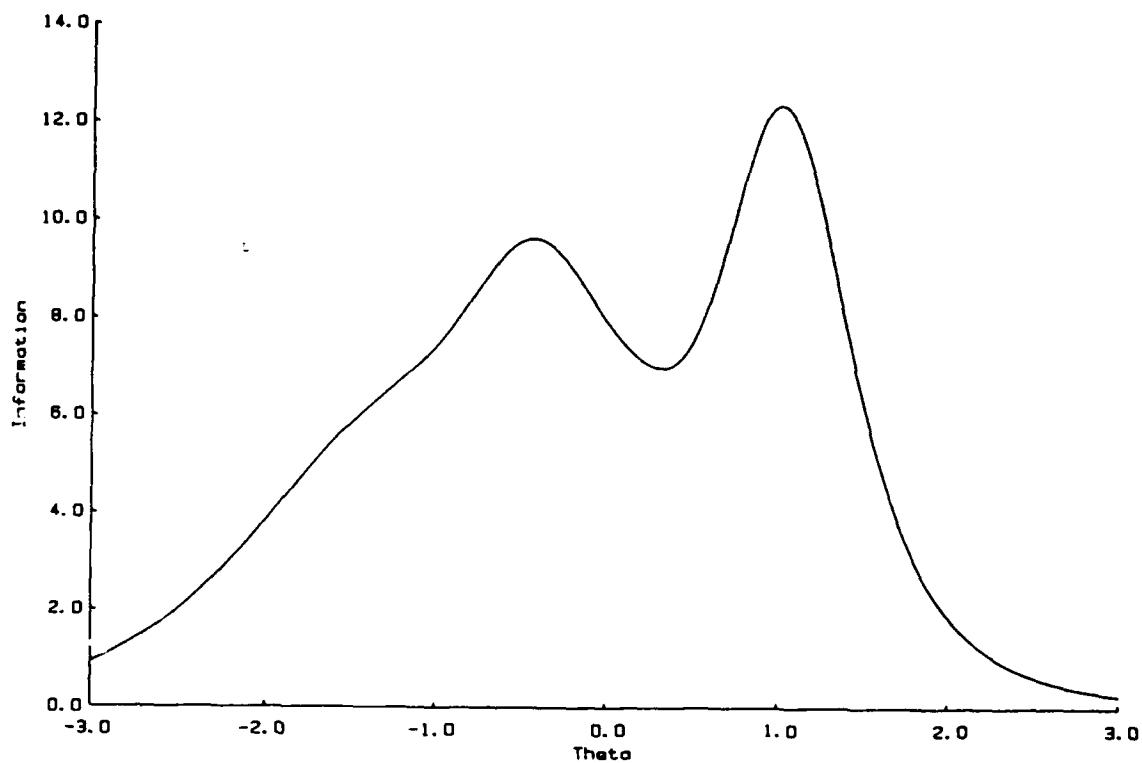


Figure A-5. Test Information Curve for General Science Subtest on ASVAB Form 13a (Total Sample).

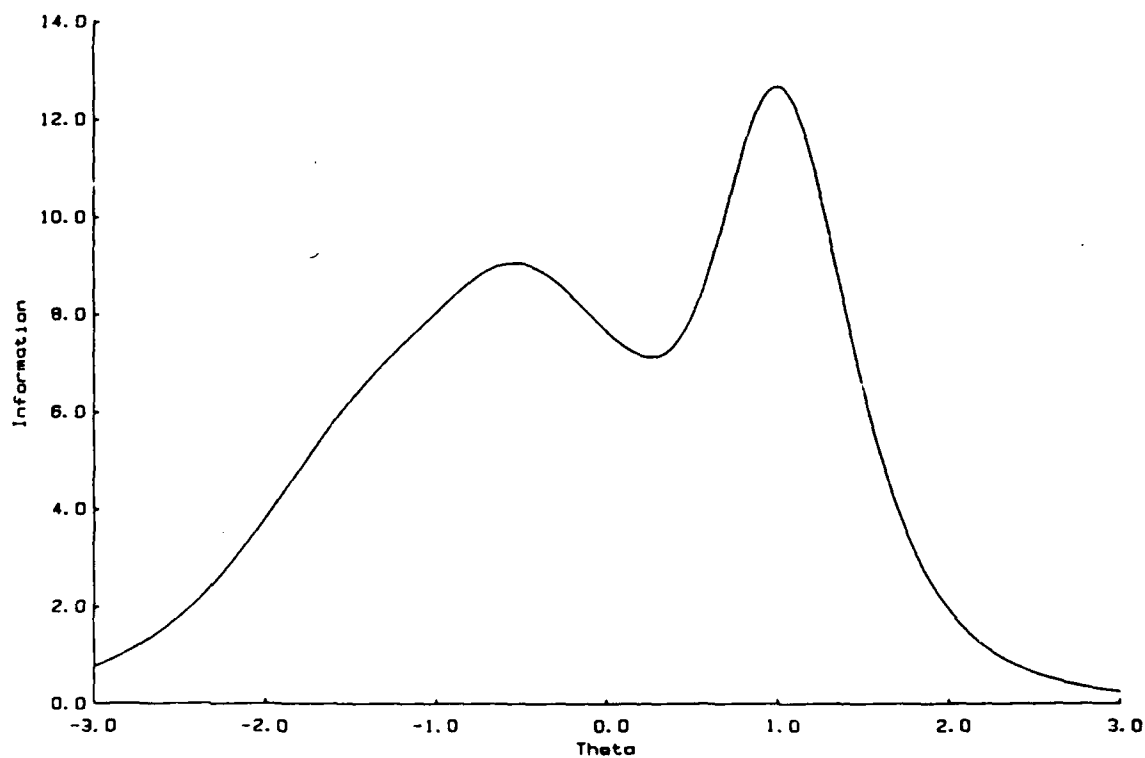


Figure A-6. Test Information Curve for General Science Subtest on ASVAB Form 13b (Total Sample).

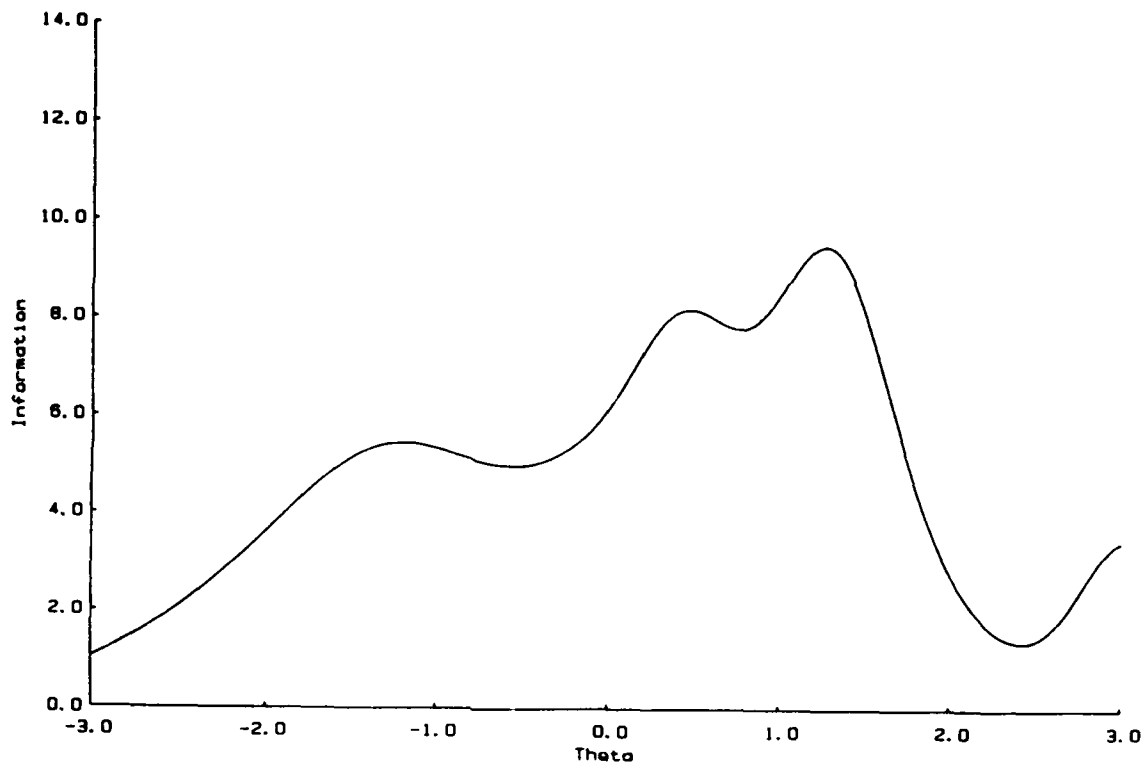


Figure A-7. Test Information Curve for General Science Subtest on ASVAB Form 13c (Total Sample).

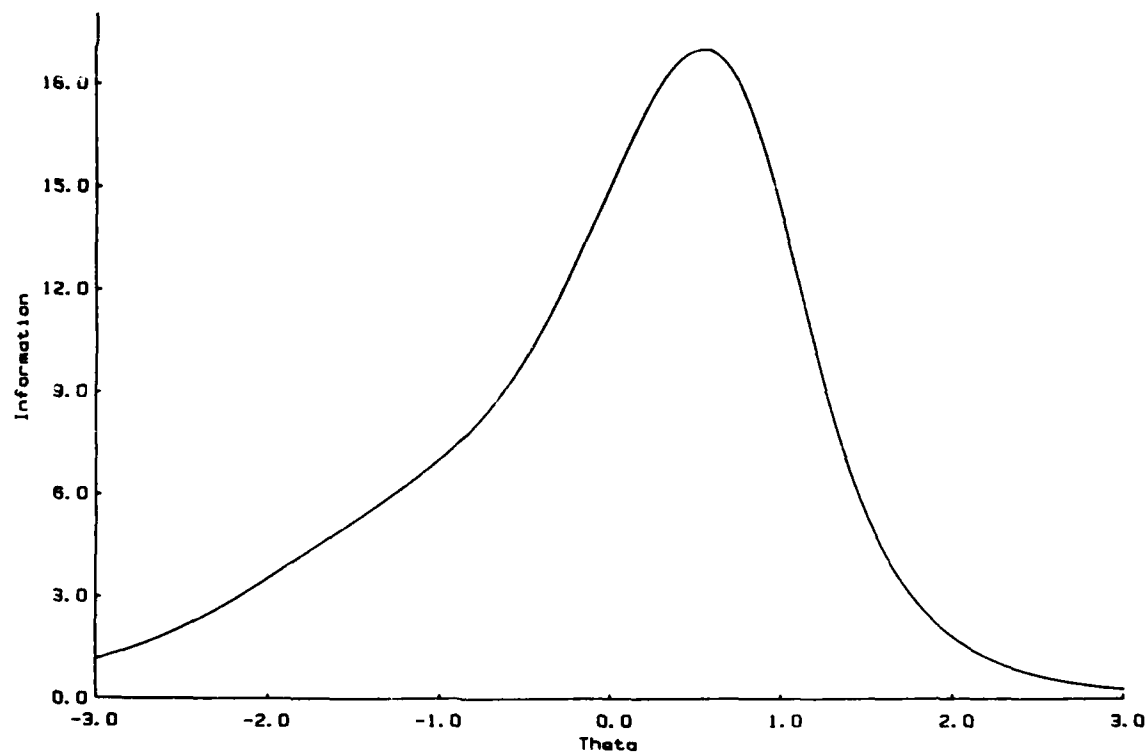


Figure A-8. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 11a (Total Sample).

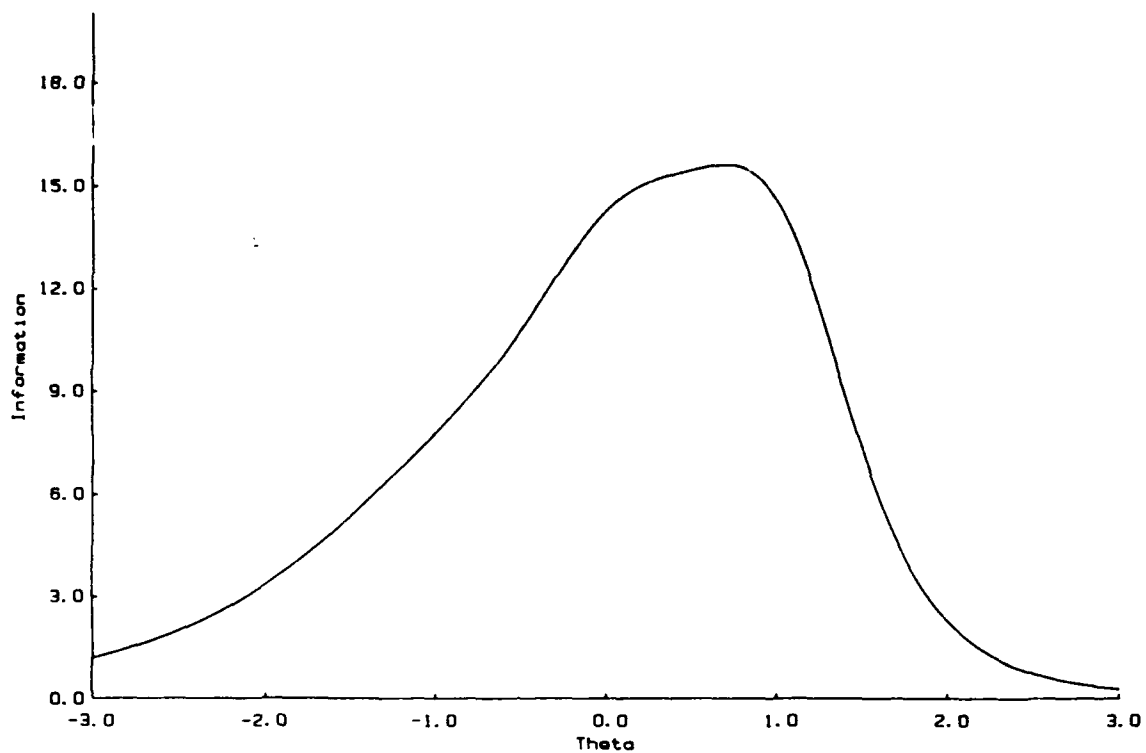


Figure A-9. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 11b (Total Sample).

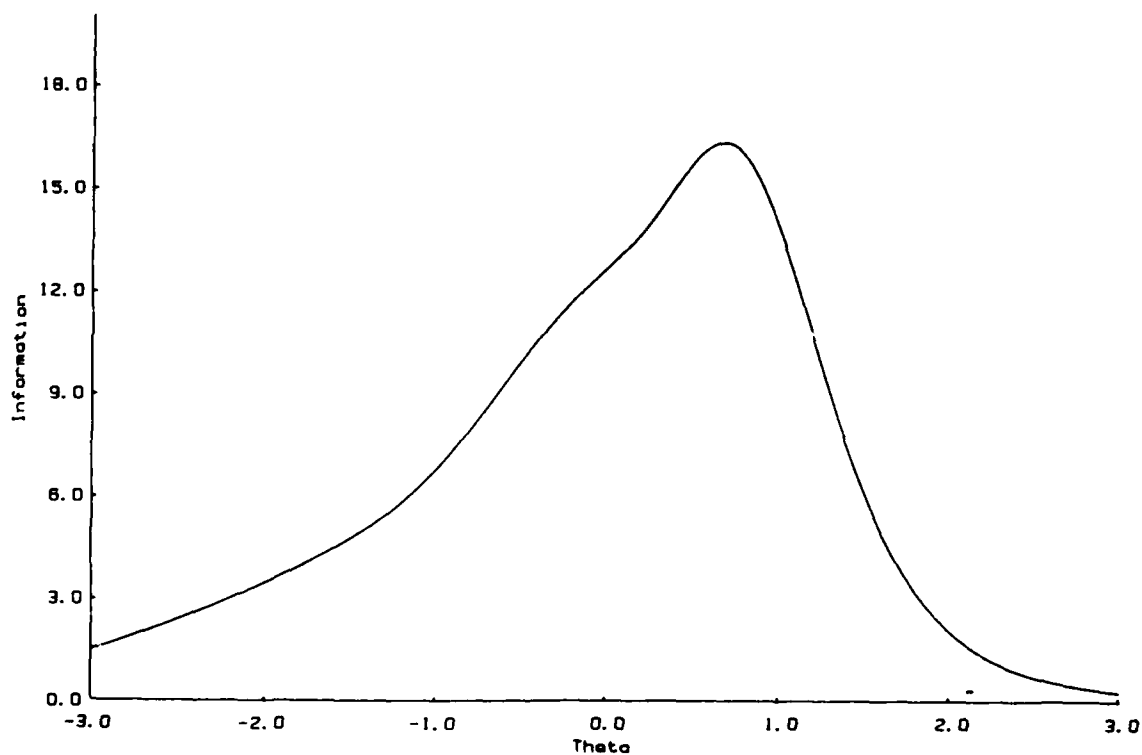


Figure A-10. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 12a (Total Sample).

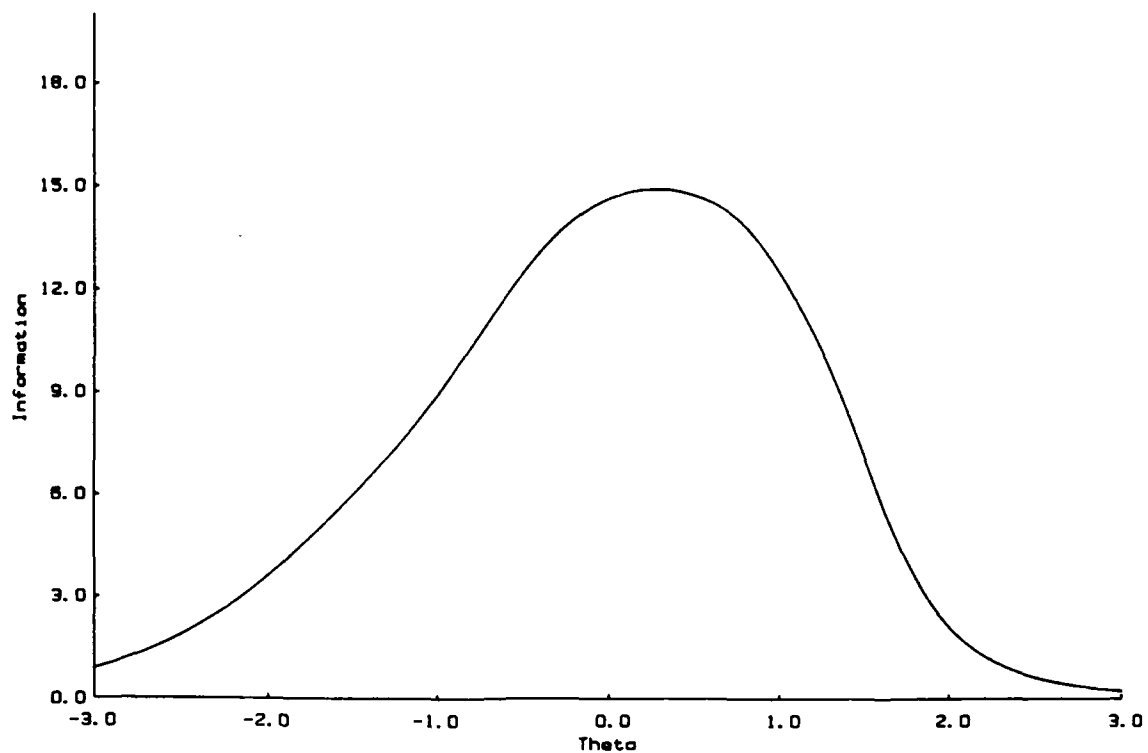


Figure A-11. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 12b (Total Sample).

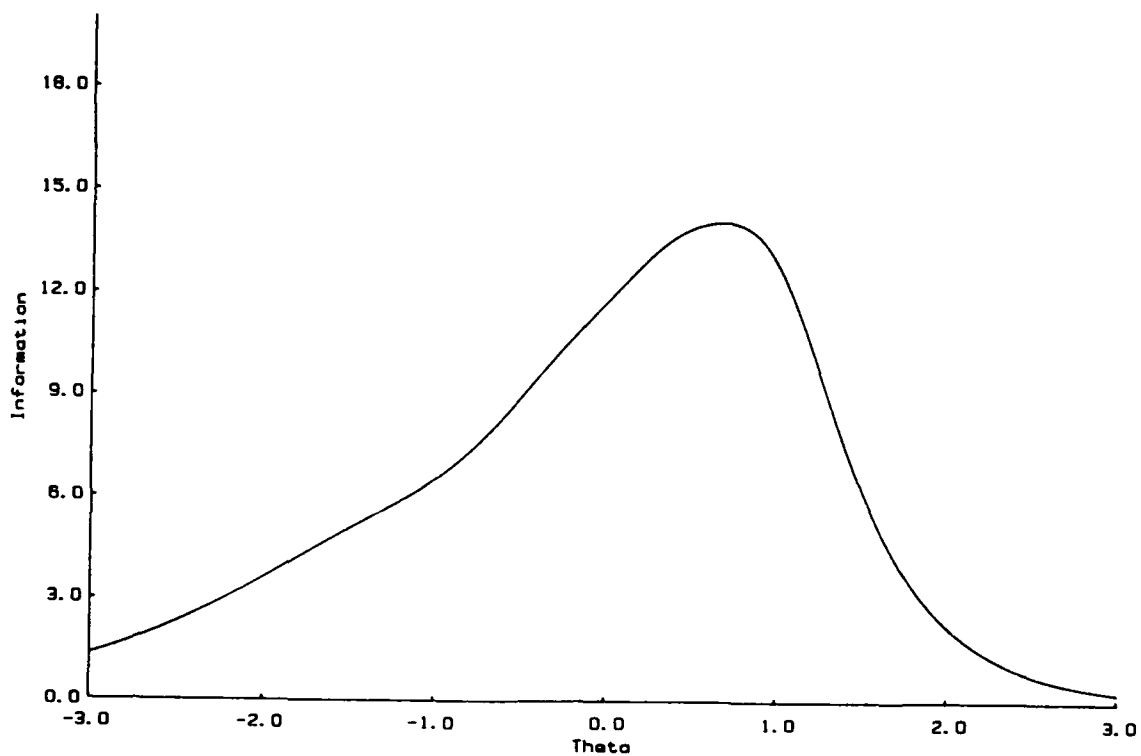


Figure A-12. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13a (Total Sample).

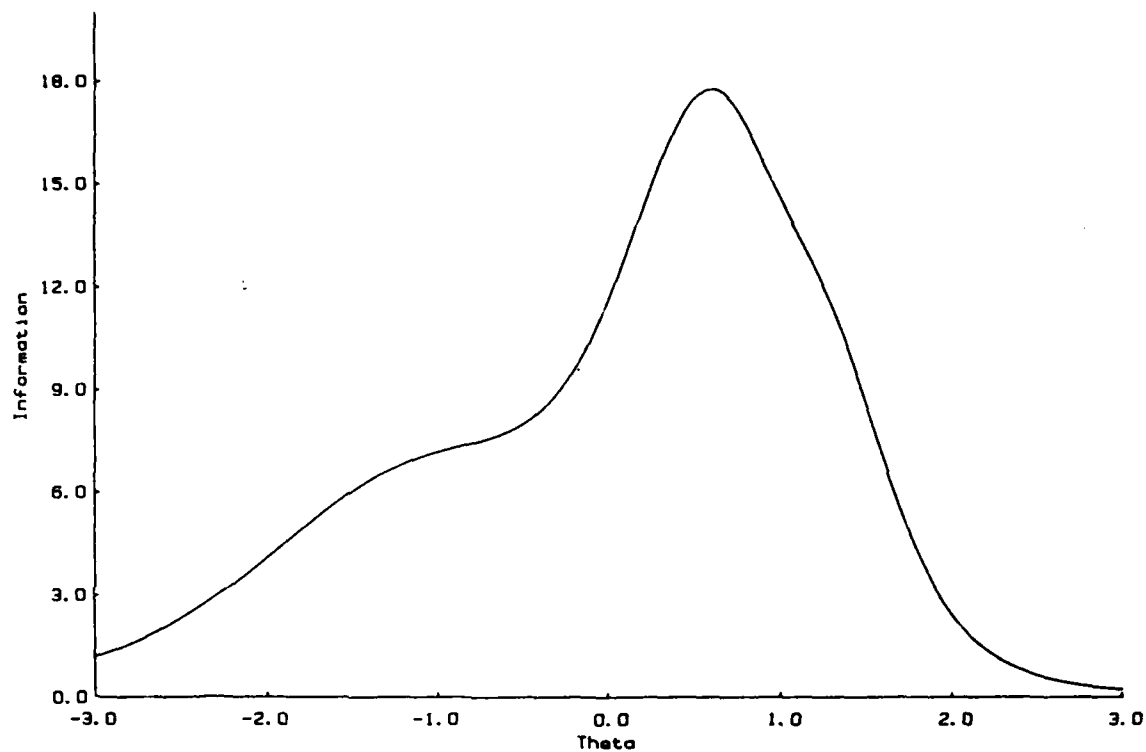


Figure A-13. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13b (Total Sample).

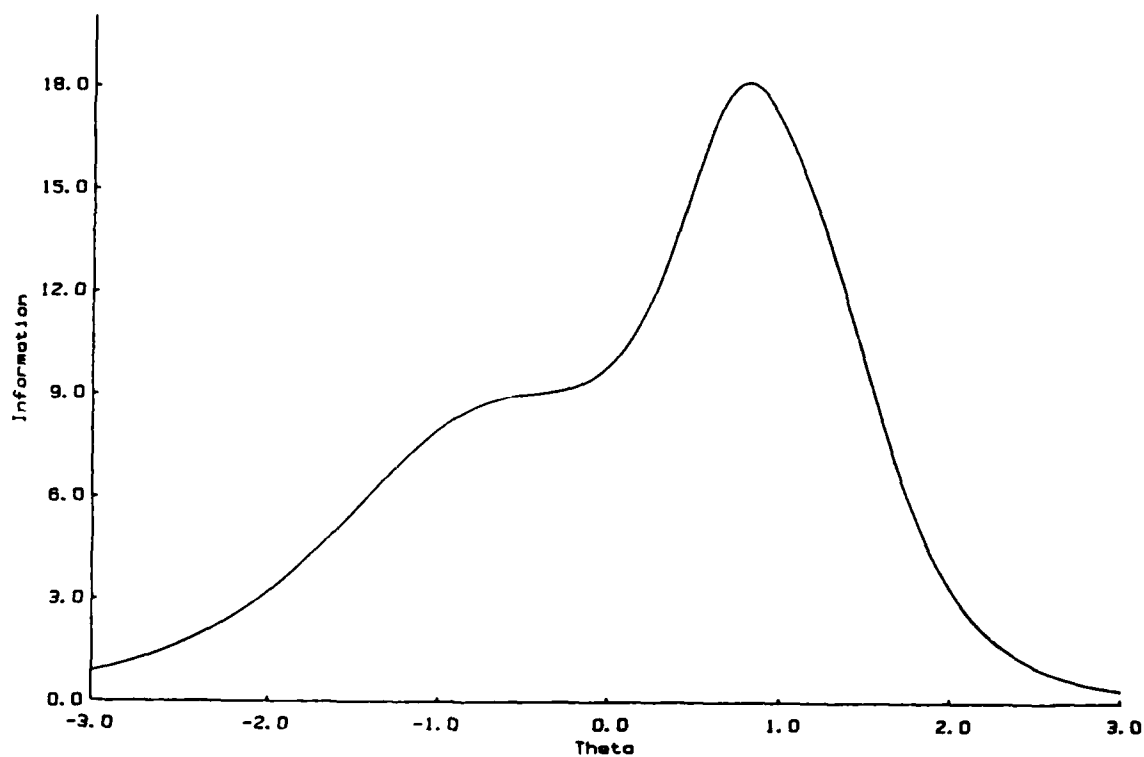


Figure A-14. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13c (Total Sample).

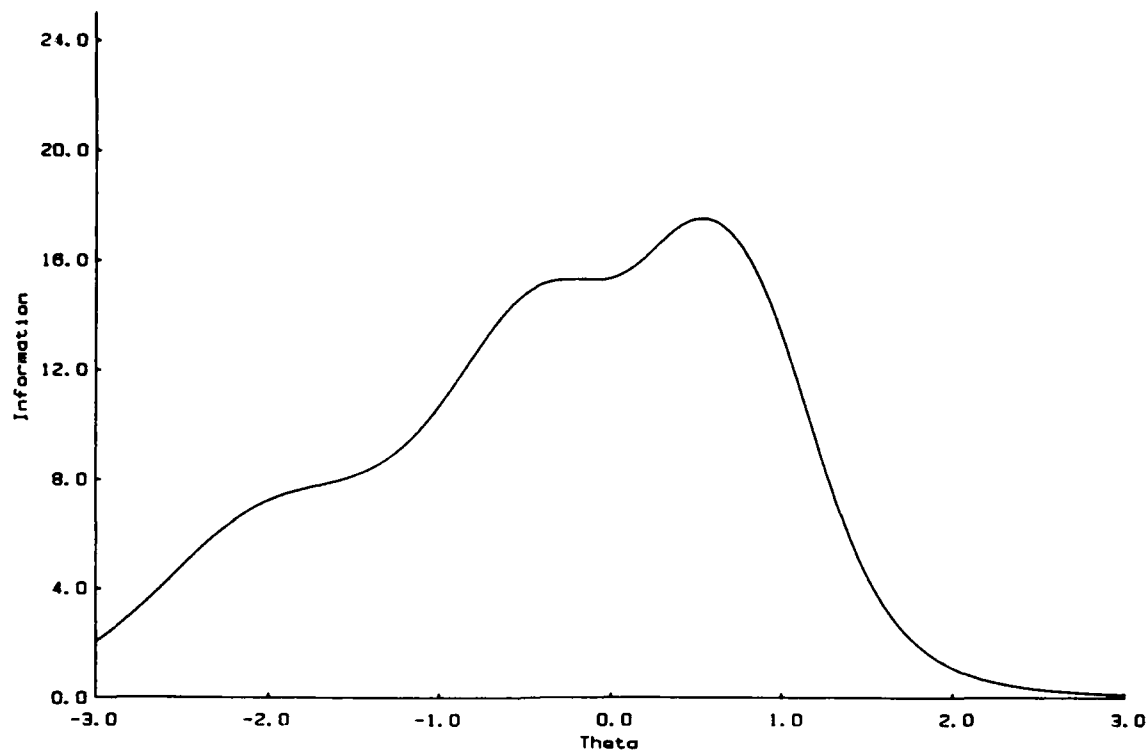


Figure A-15. Test Information Curve for Word Knowledge Subtest on ASVAB Form 11a (Total Sample).

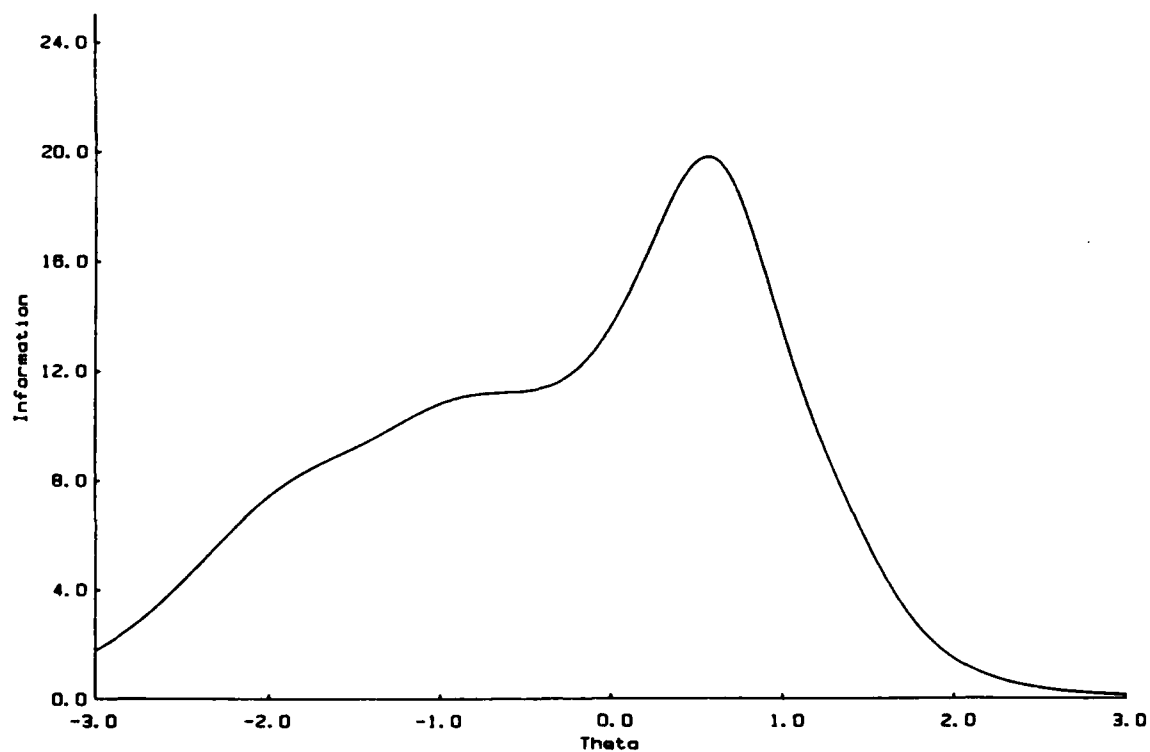


Figure A-16. Test Information Curve for Word Knowledge Subtest on ASVAB Form 11b (Total Sample).

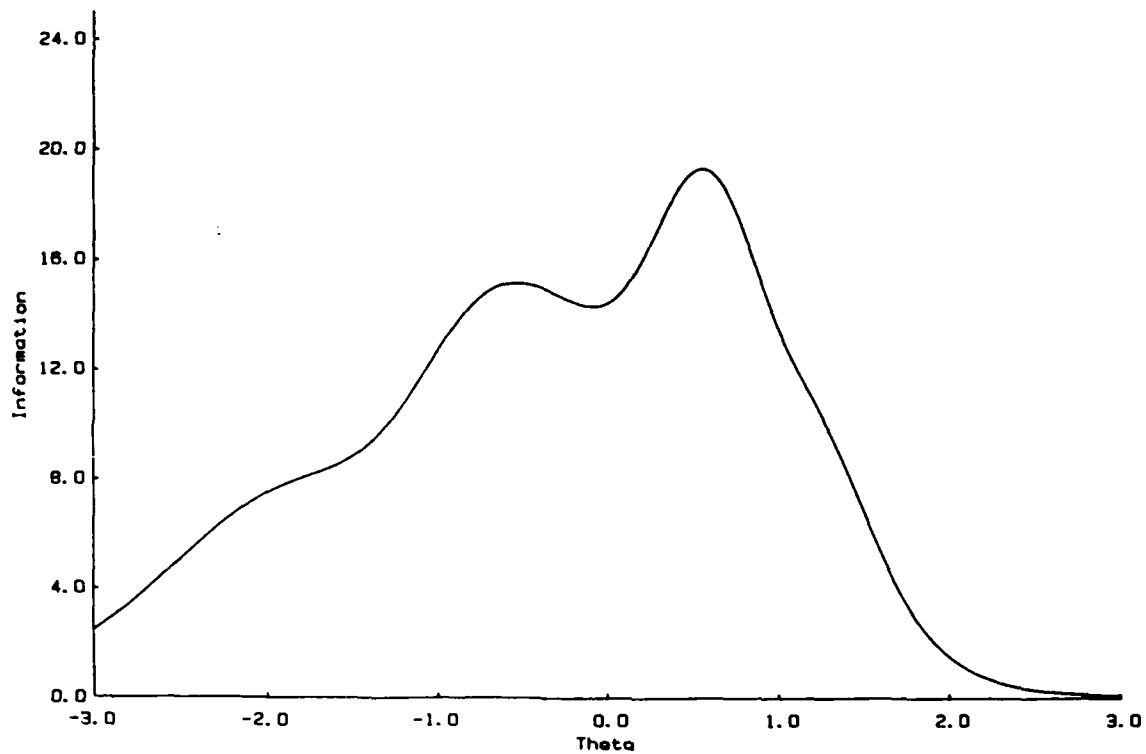


Figure A-17. Test Information Curve for Word Knowledge Subtest on ASVAB Form 12a (Total Sample).

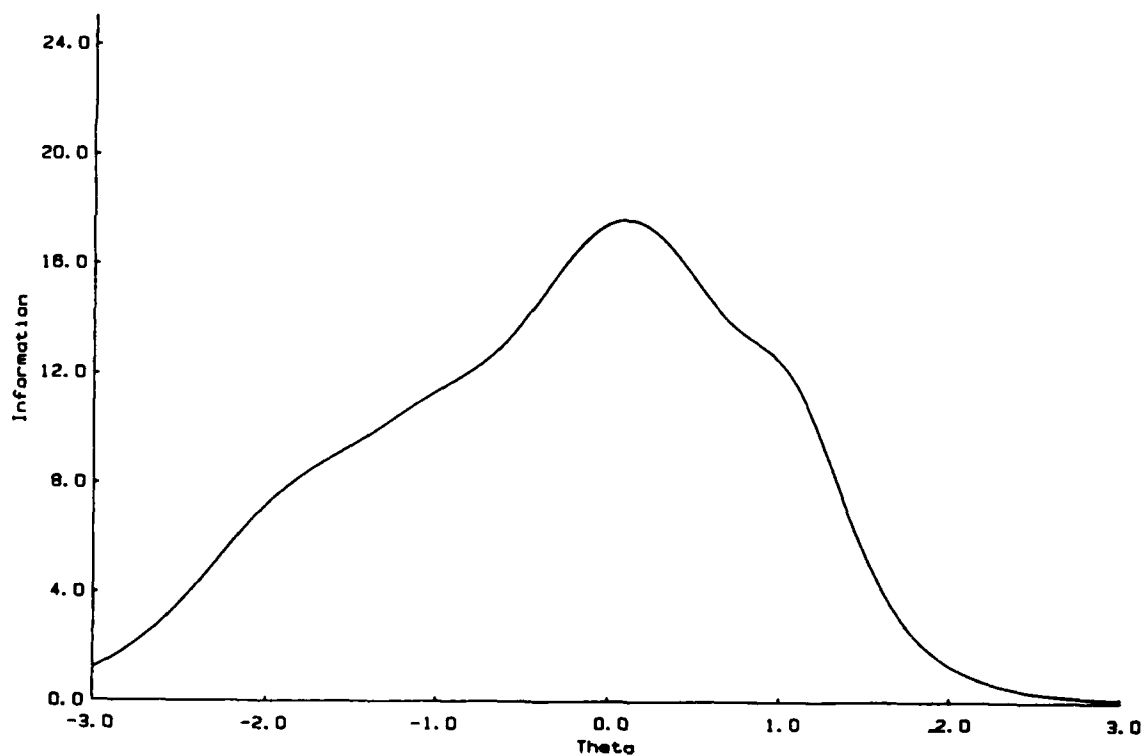


Figure A-18. Test Information Curve for Word Knowledge Subtest on ASVAB Form 12b (Total Sample).

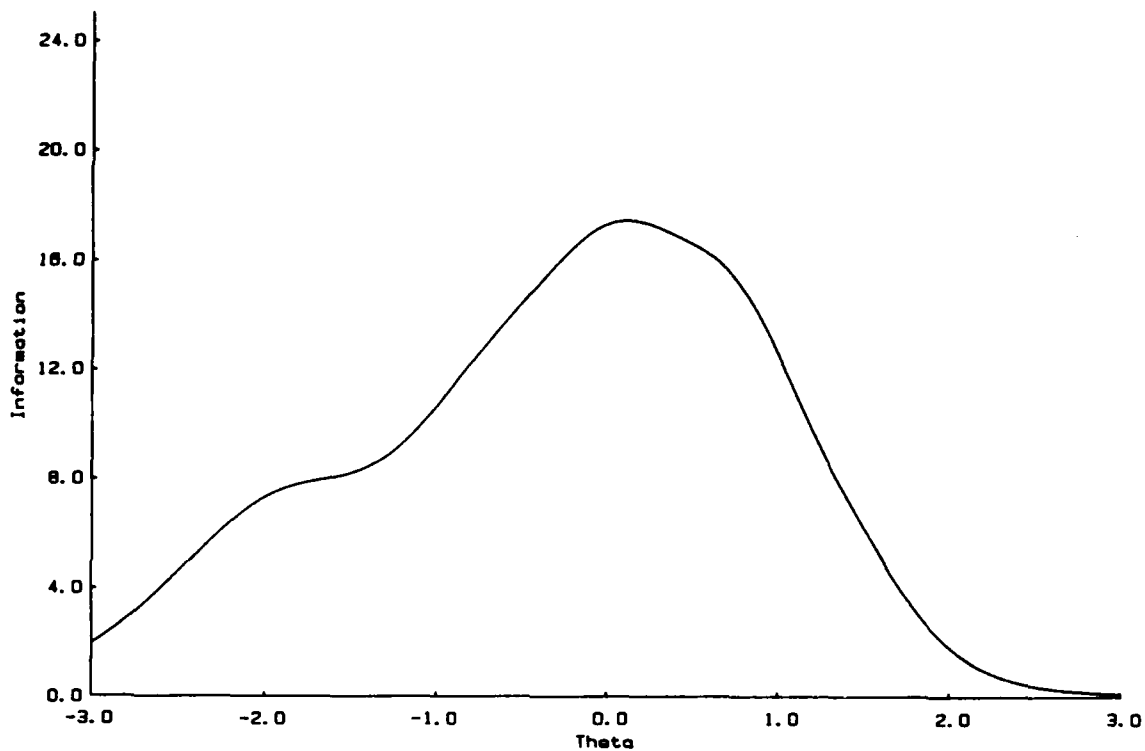


Figure A-19. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13a (Total Sample).

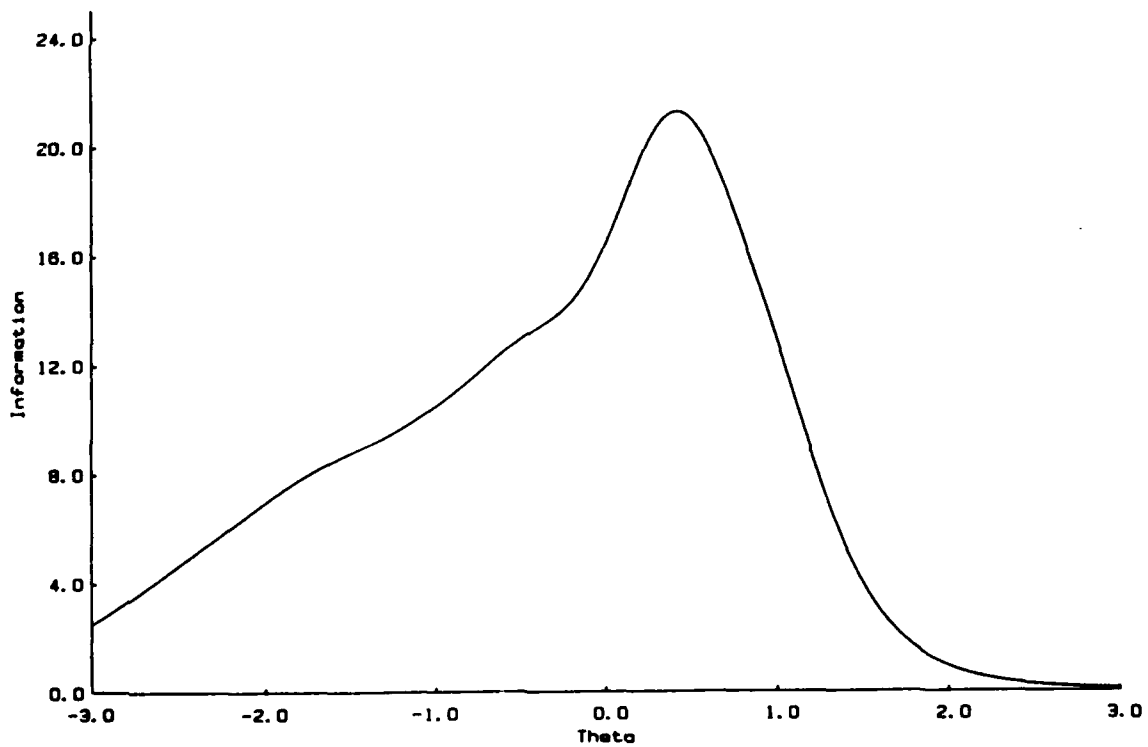


Figure A-20. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13b (Total Sample).



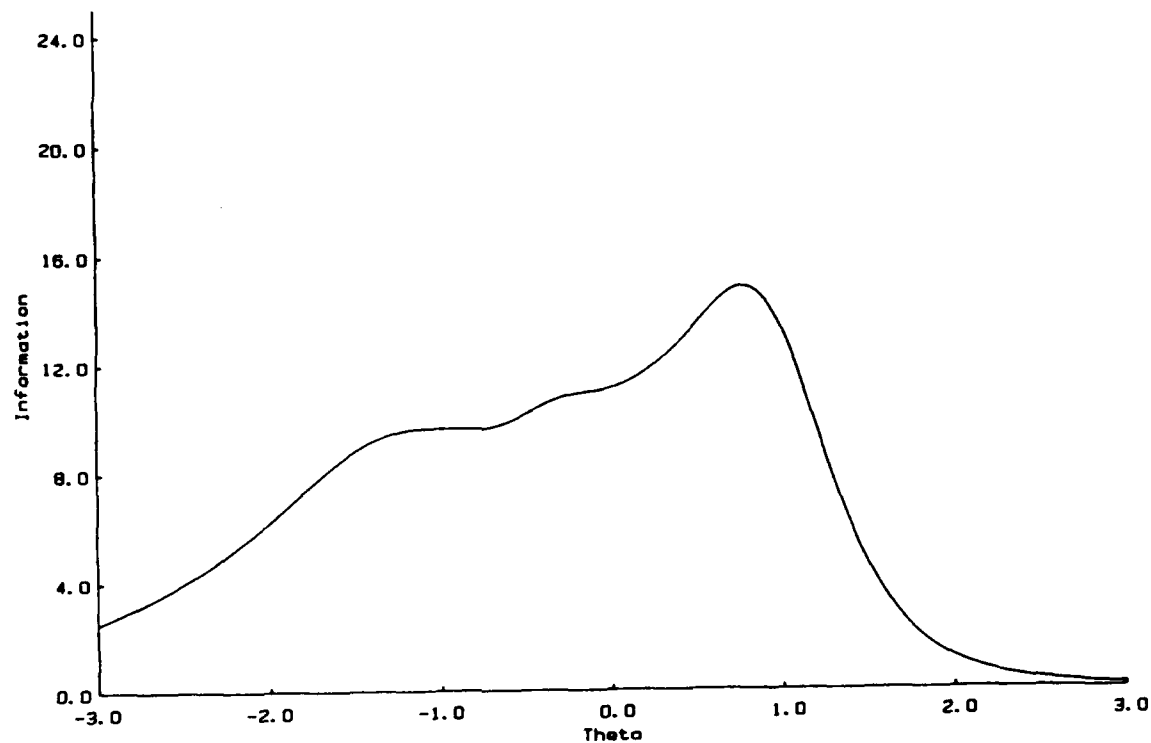


Figure A-21. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13c (Total Sample).

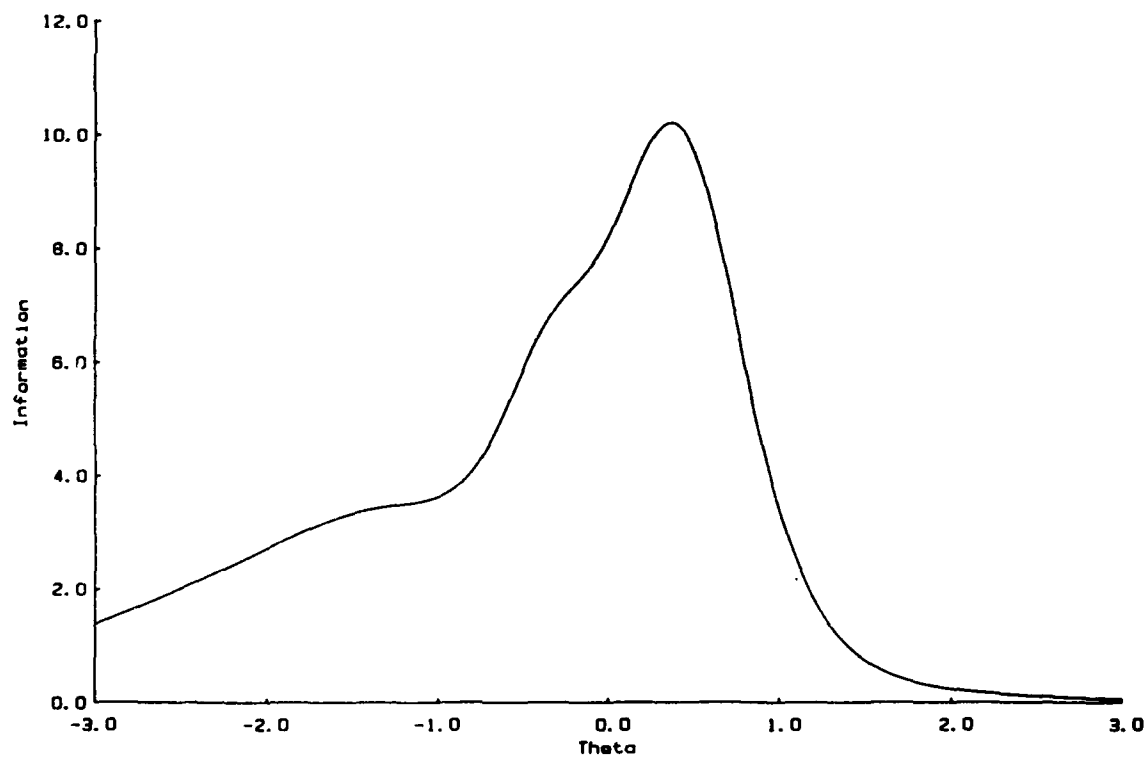


Figure A-22. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 11a (Total Sample).

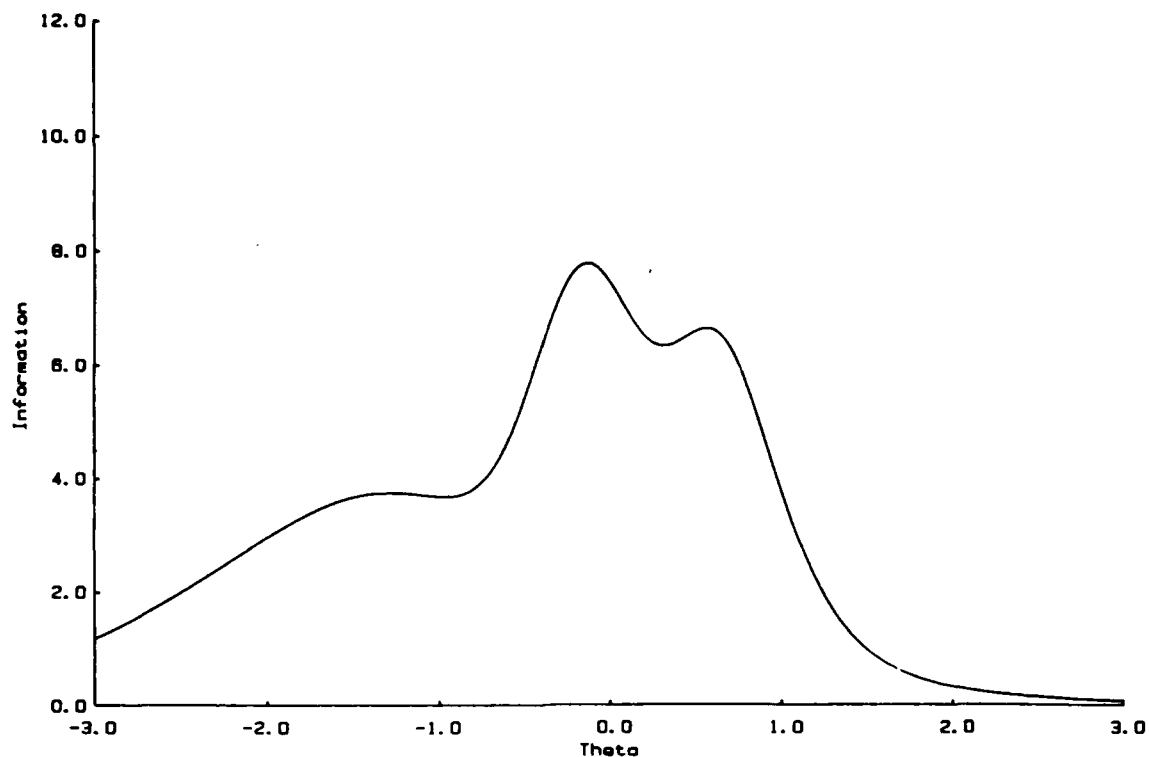


Figure A-23. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 11b (Total Sample).

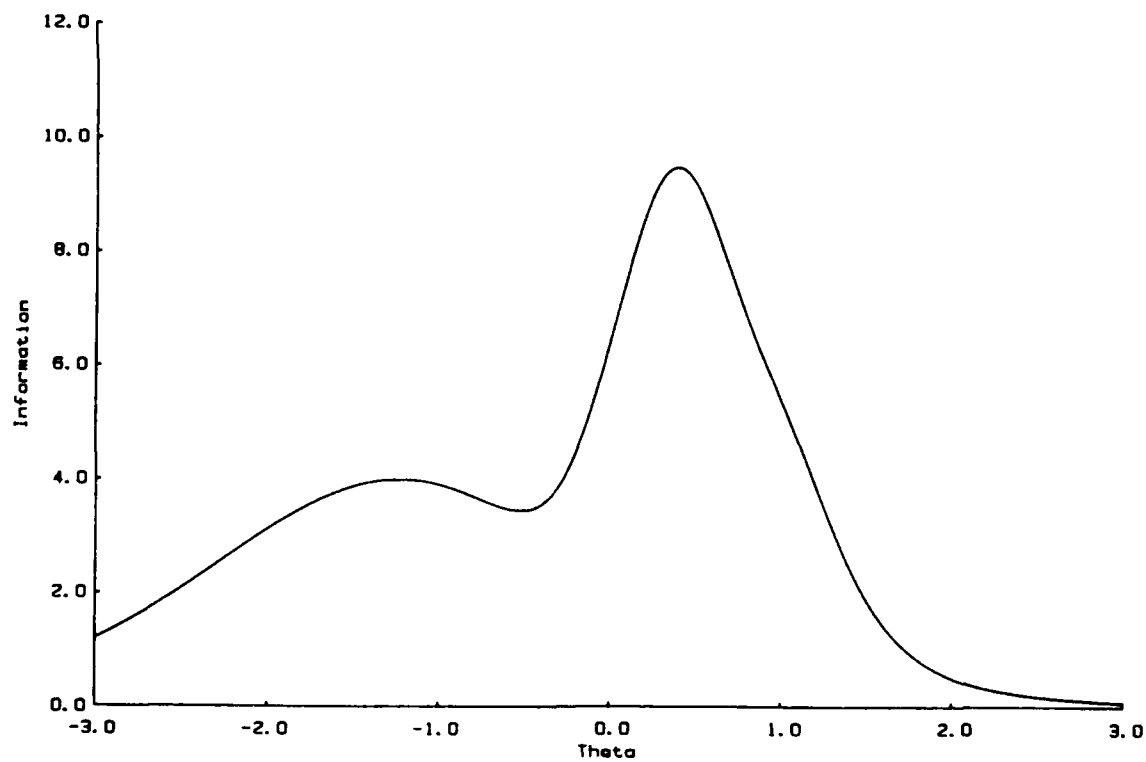


Figure A-24. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 12a (Total Sample).

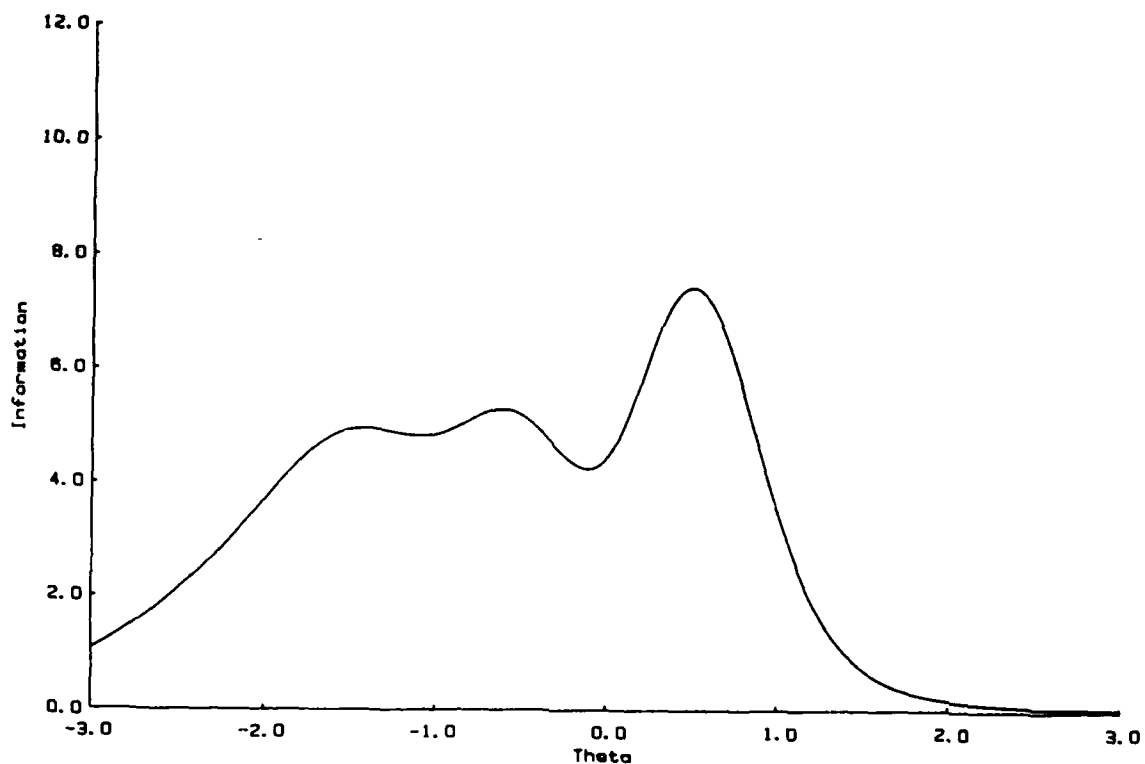


Figure A-25. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 12b (Total Sample).

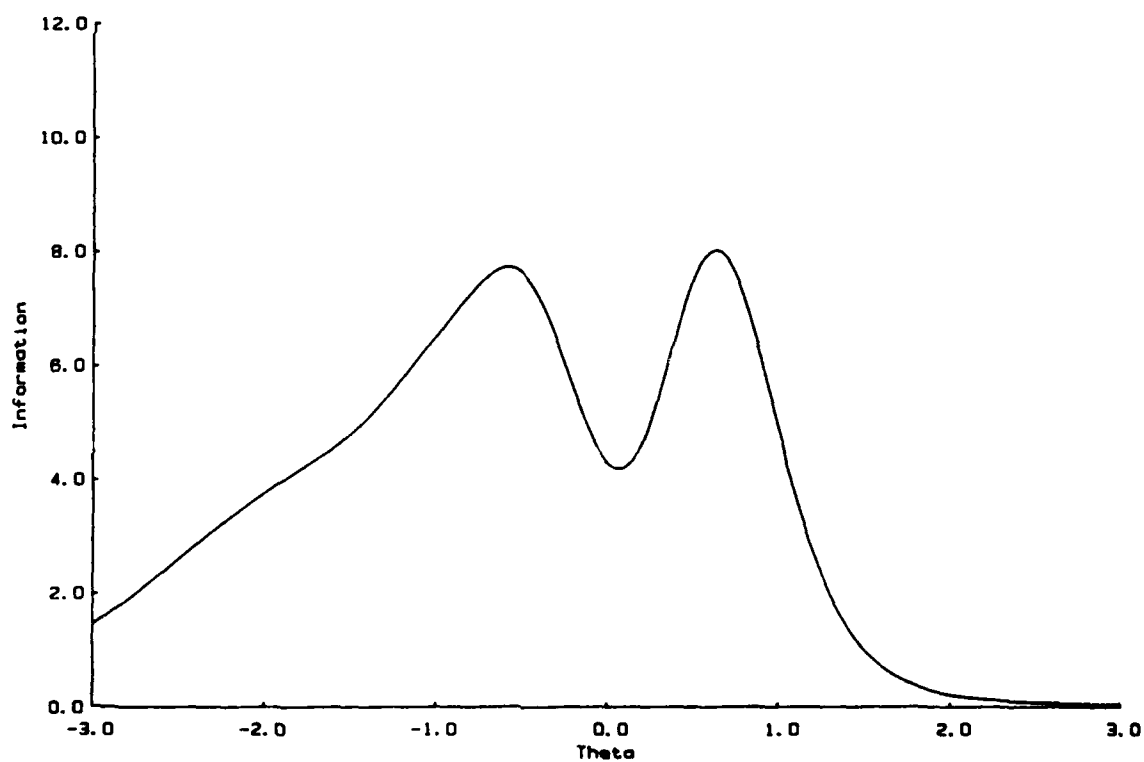


Figure A-26. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13a (Total Sample).

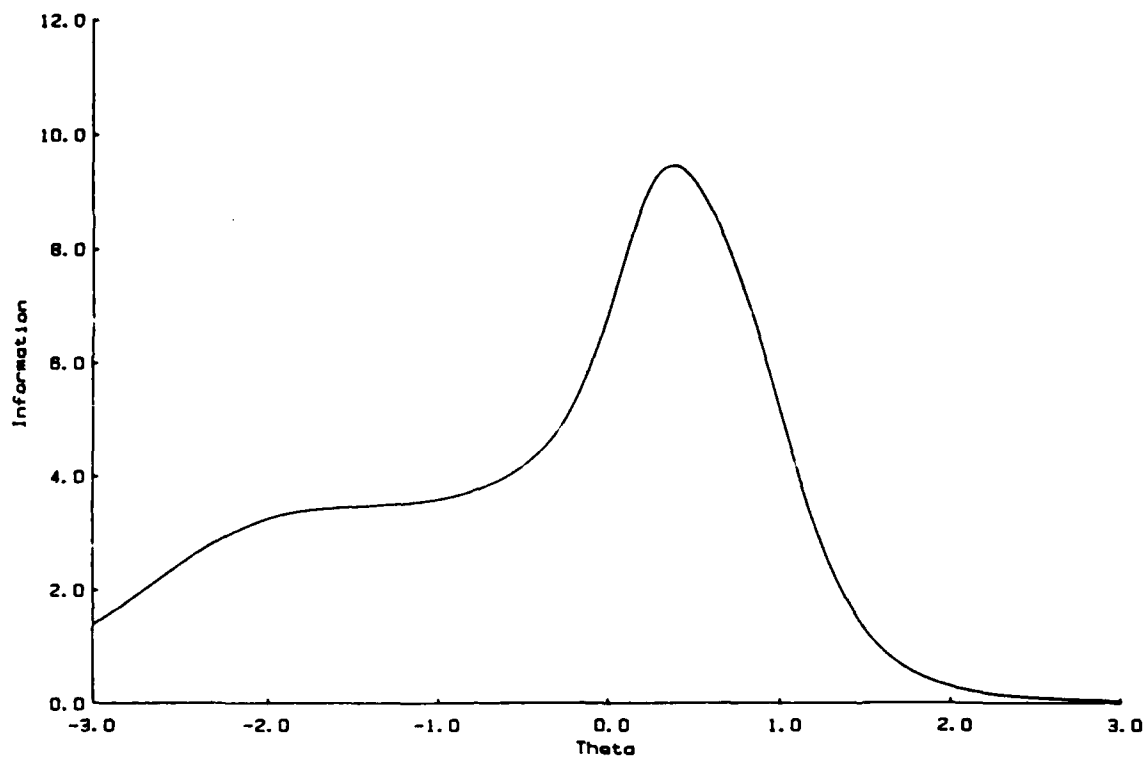


Figure A-27. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13b (Total Sample).

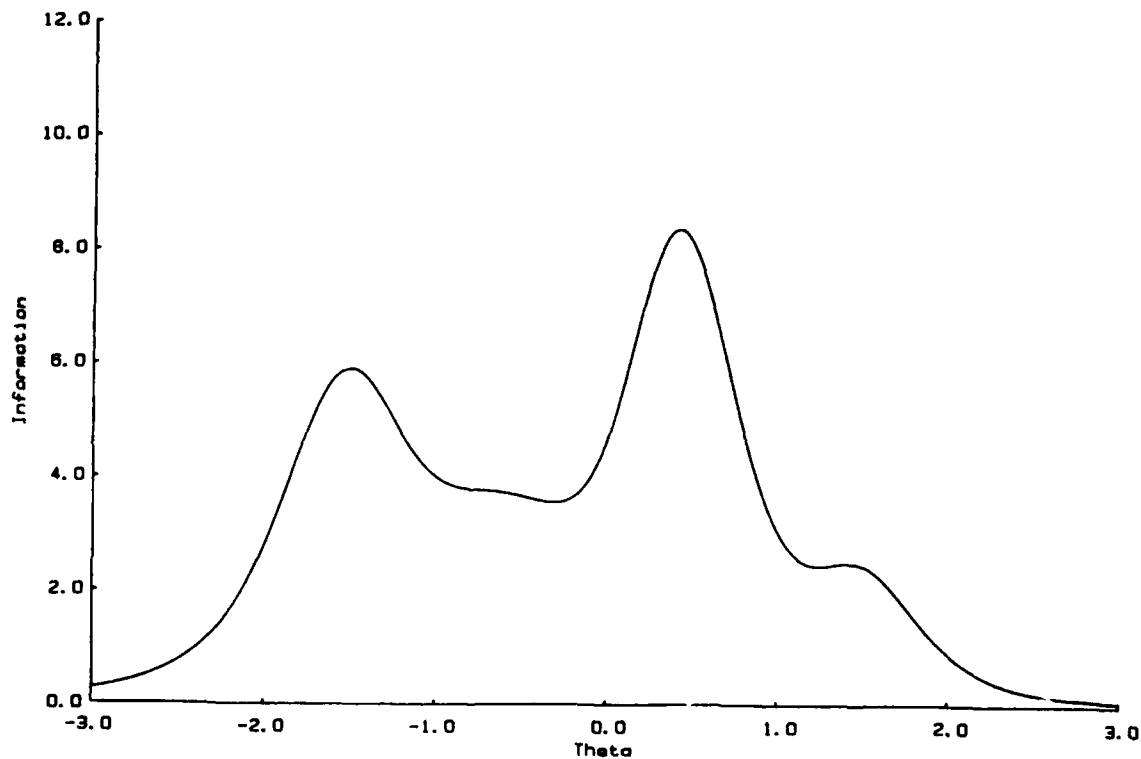


Figure A-28. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13c (Total Sample).

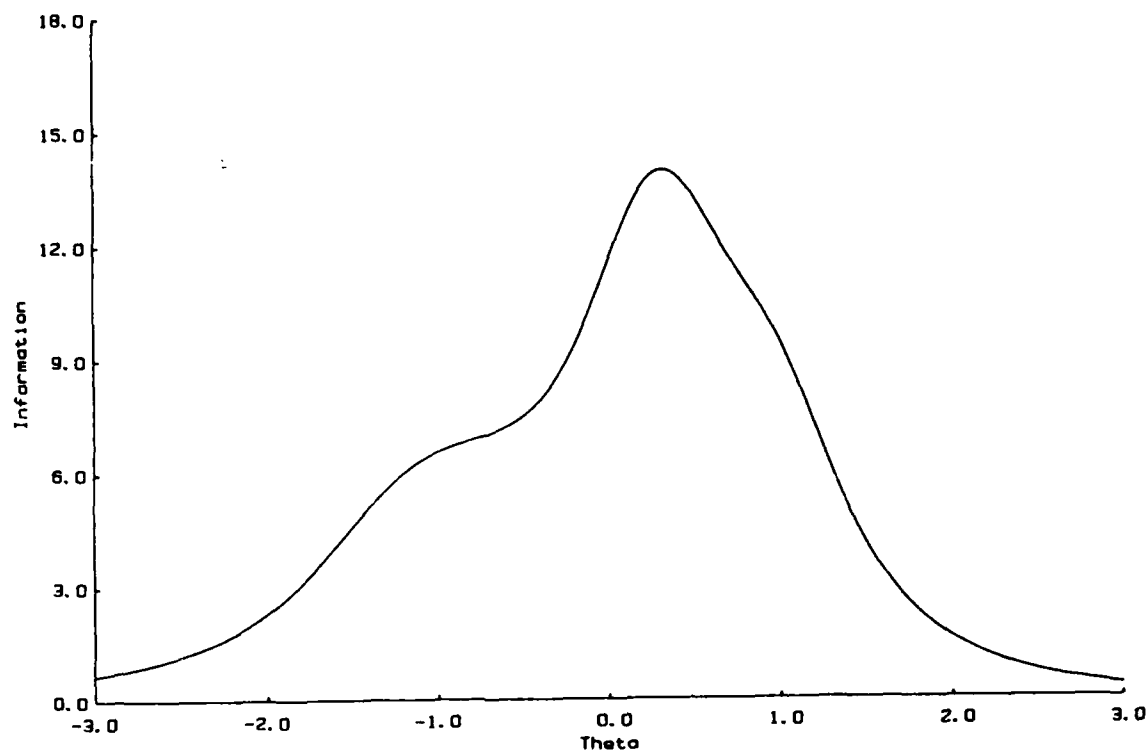


Figure A-29. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 11a (Total Sample).

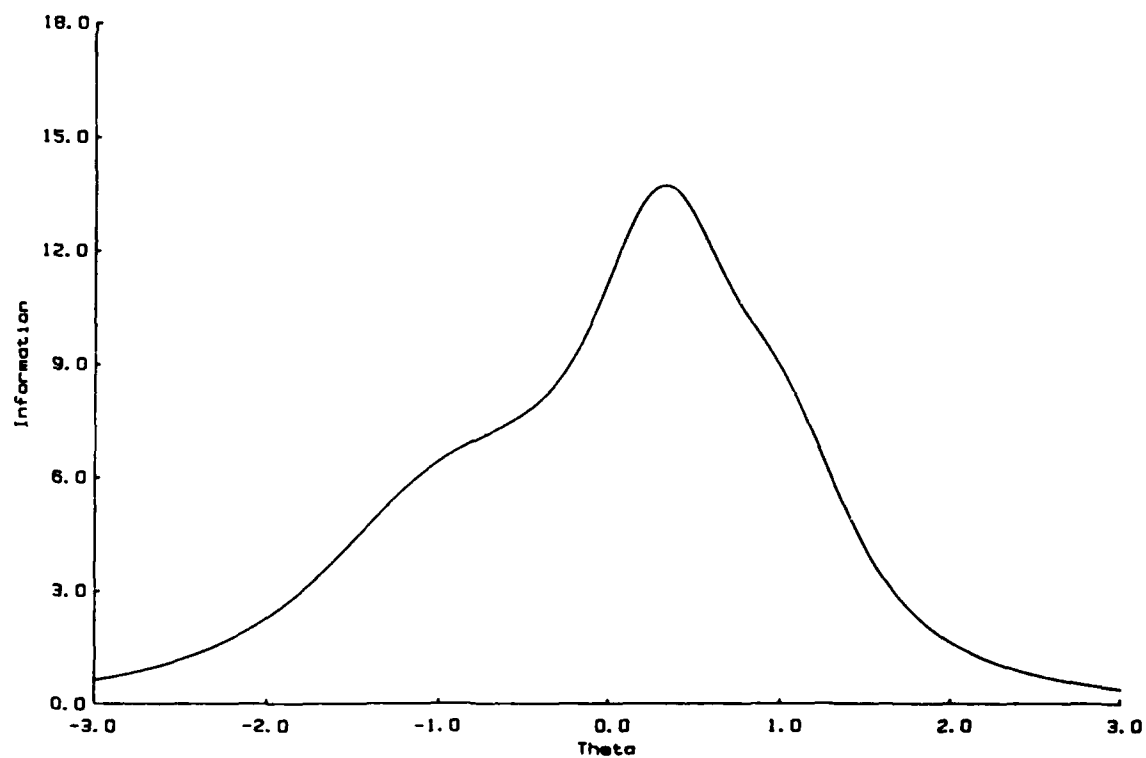


Figure A-30. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 11b (Total Sample).

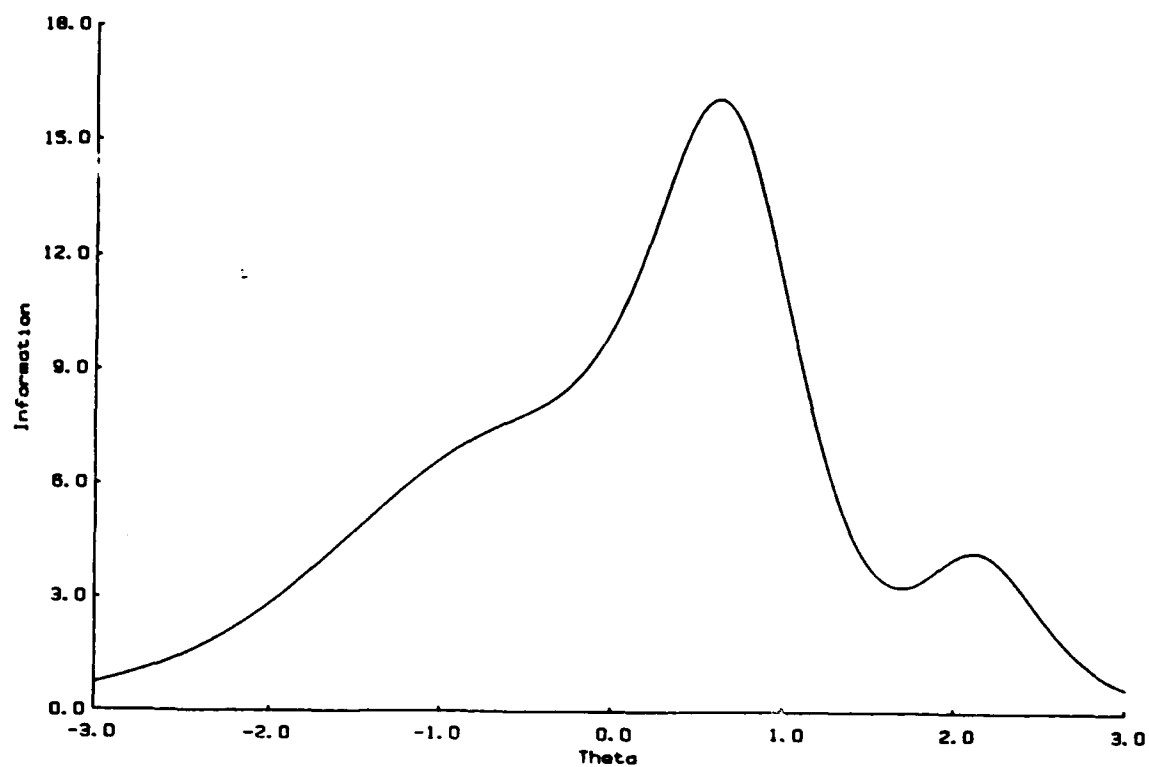


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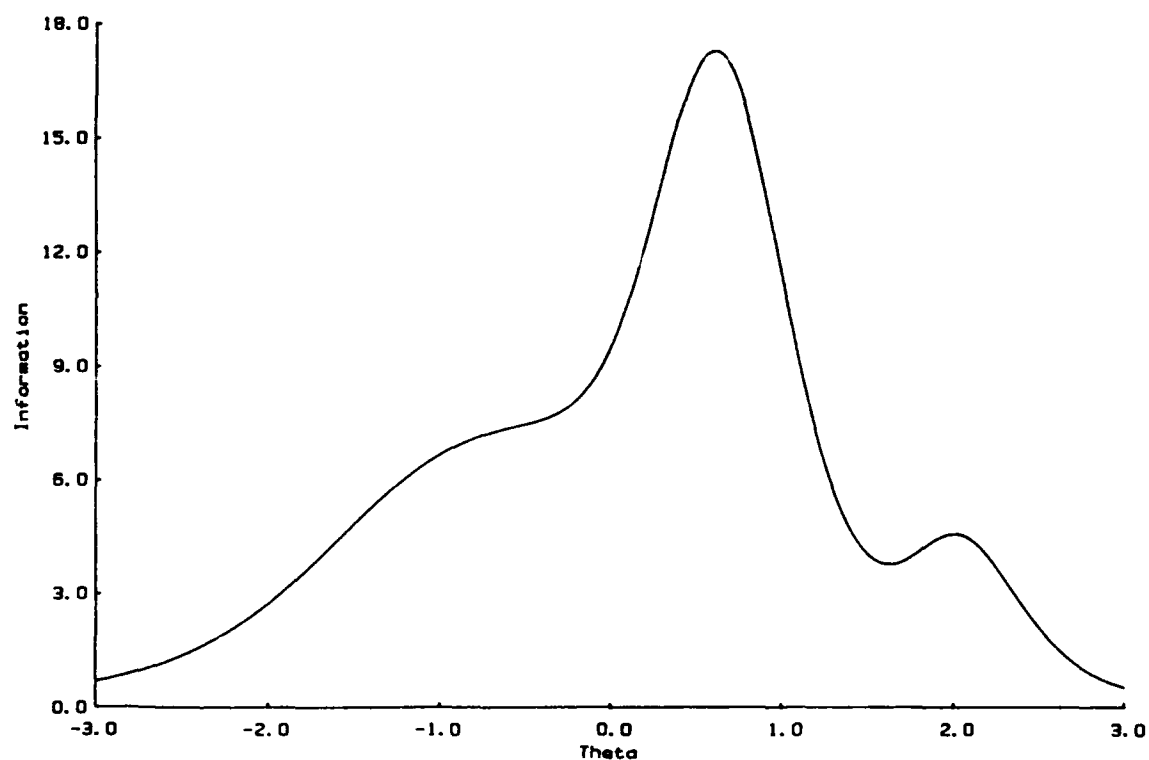


Figure A-32. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 12b (Total Sample).

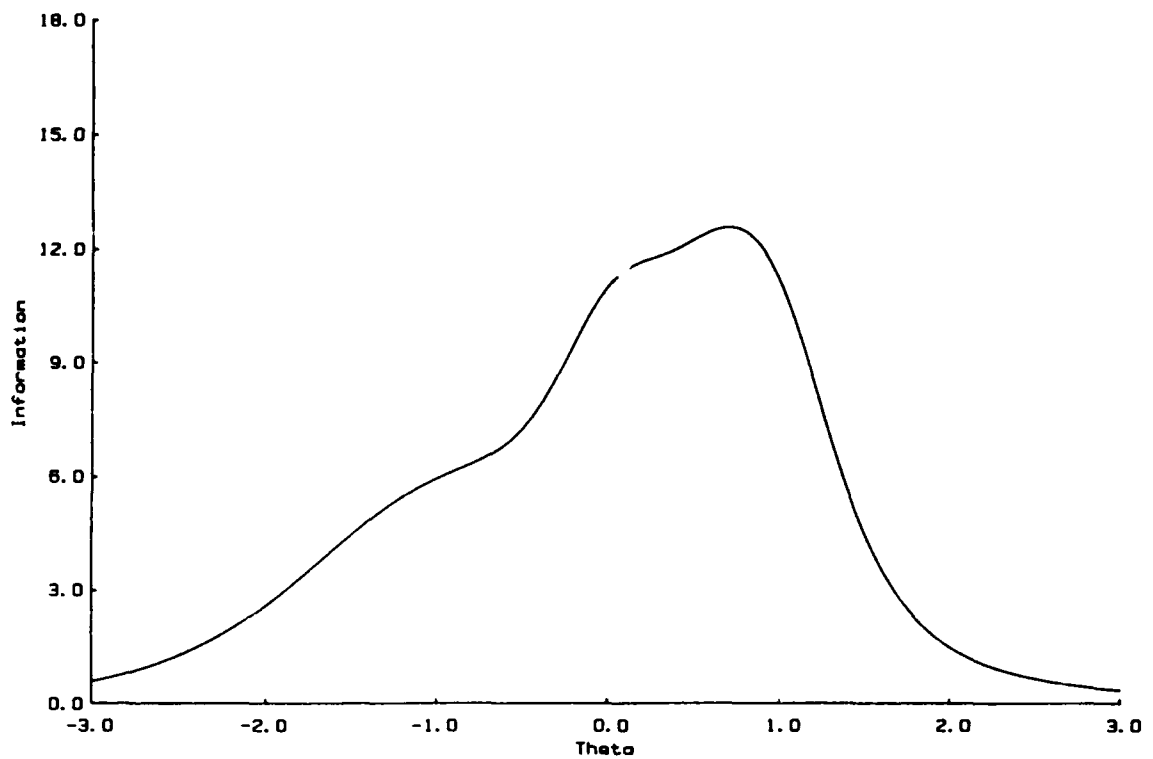


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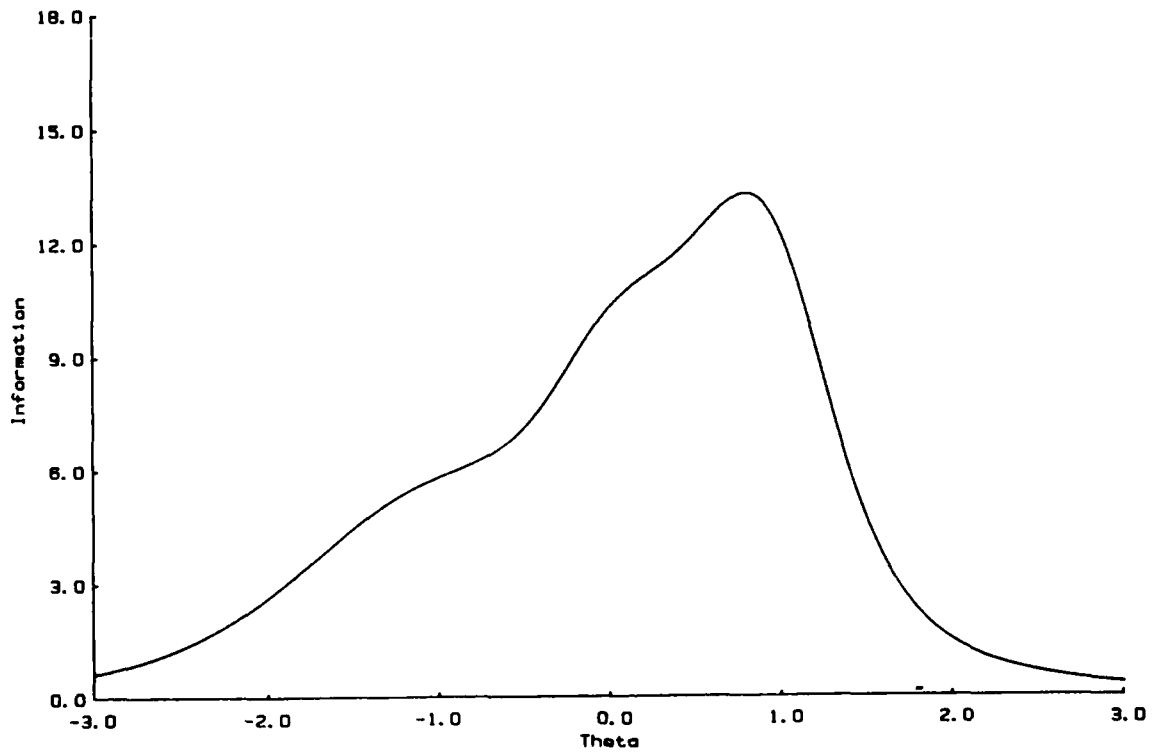


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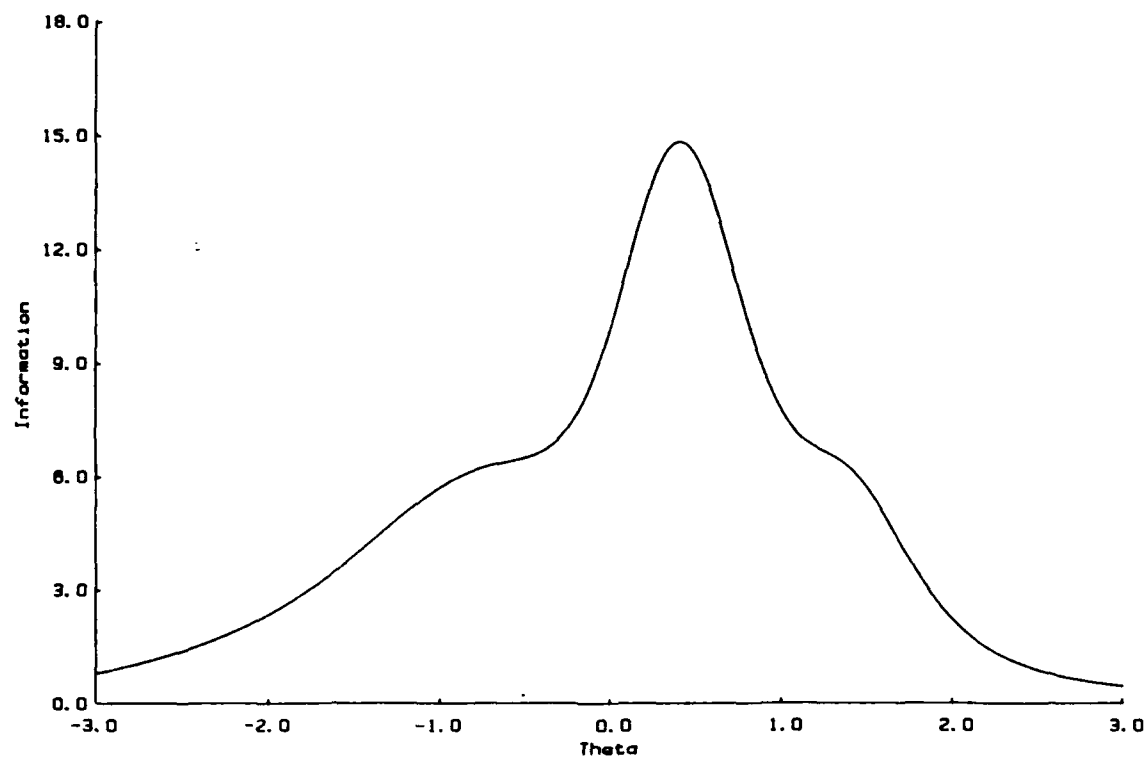


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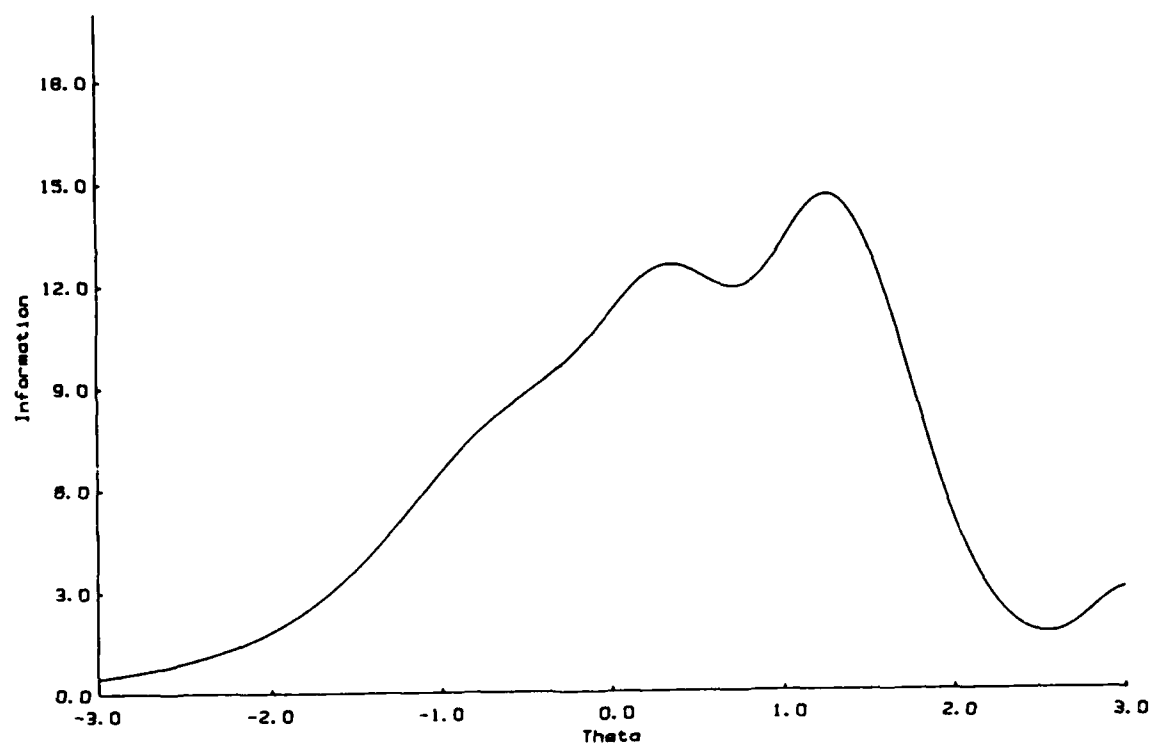


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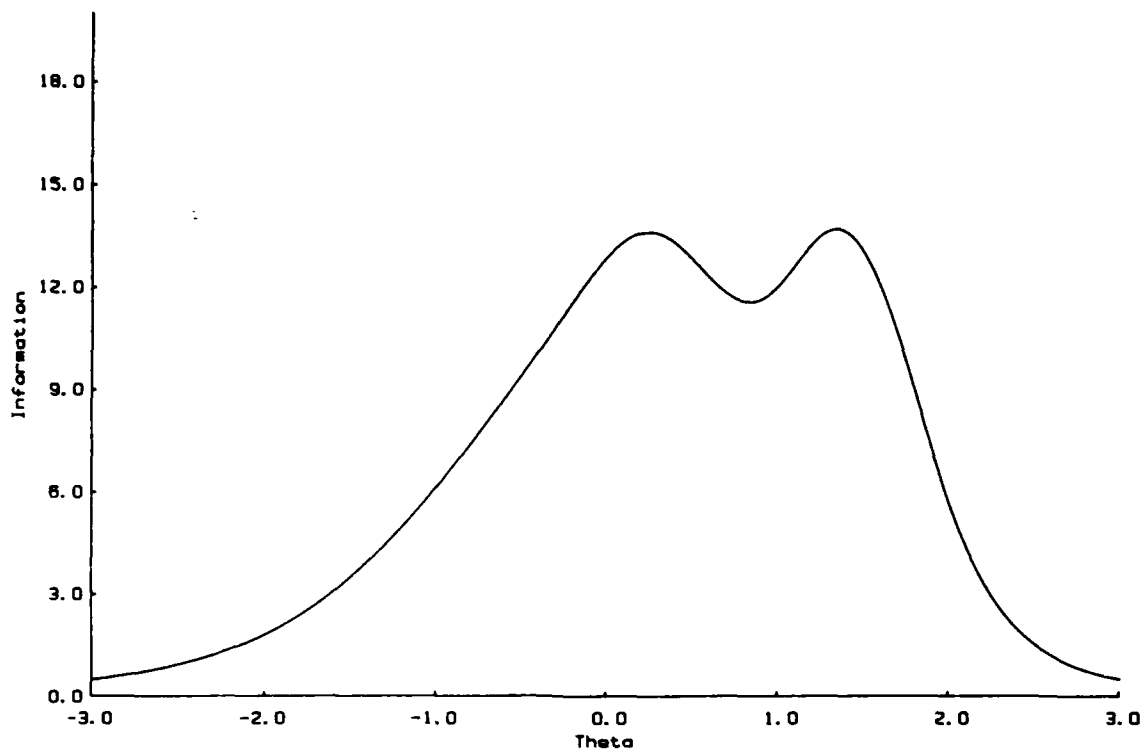


Figure A-37. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 11b (Total Sample).

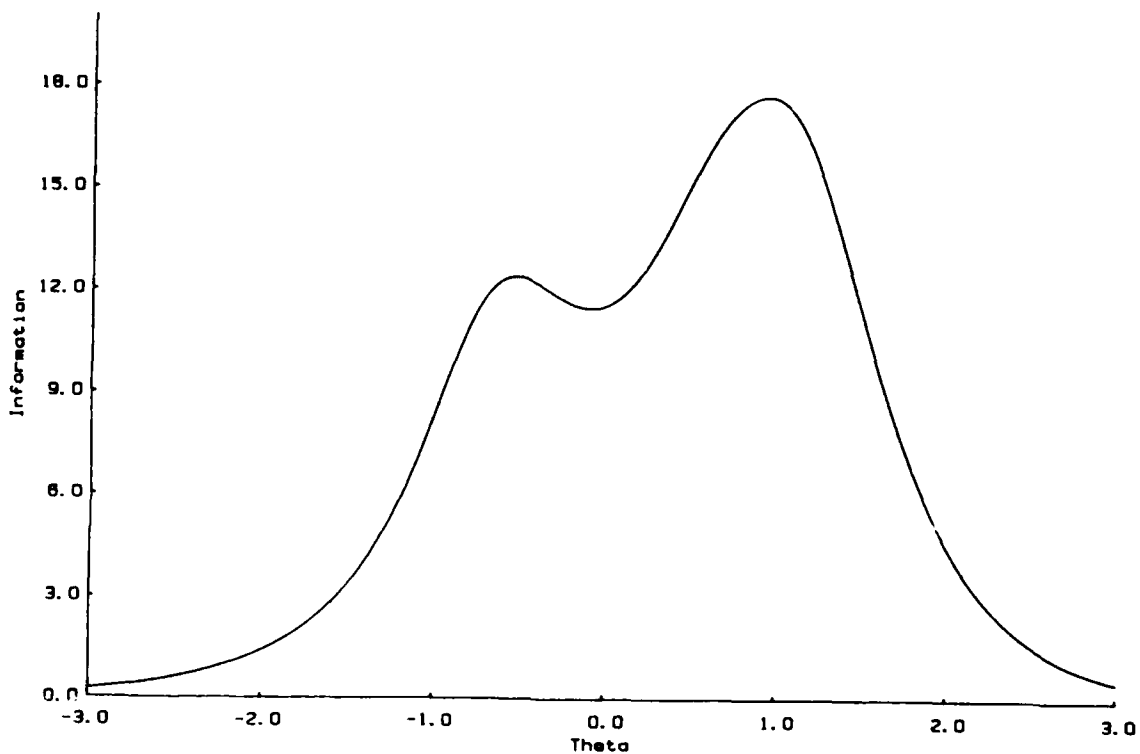


Figure A-38. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 12a (Total Sample).

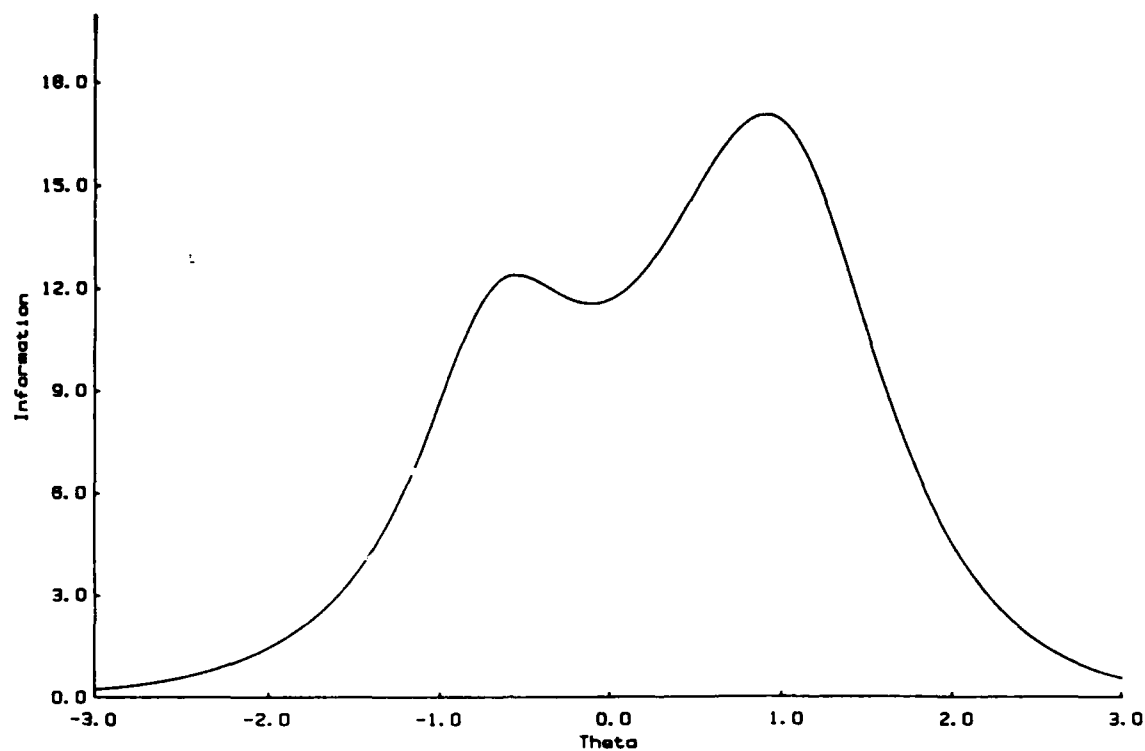


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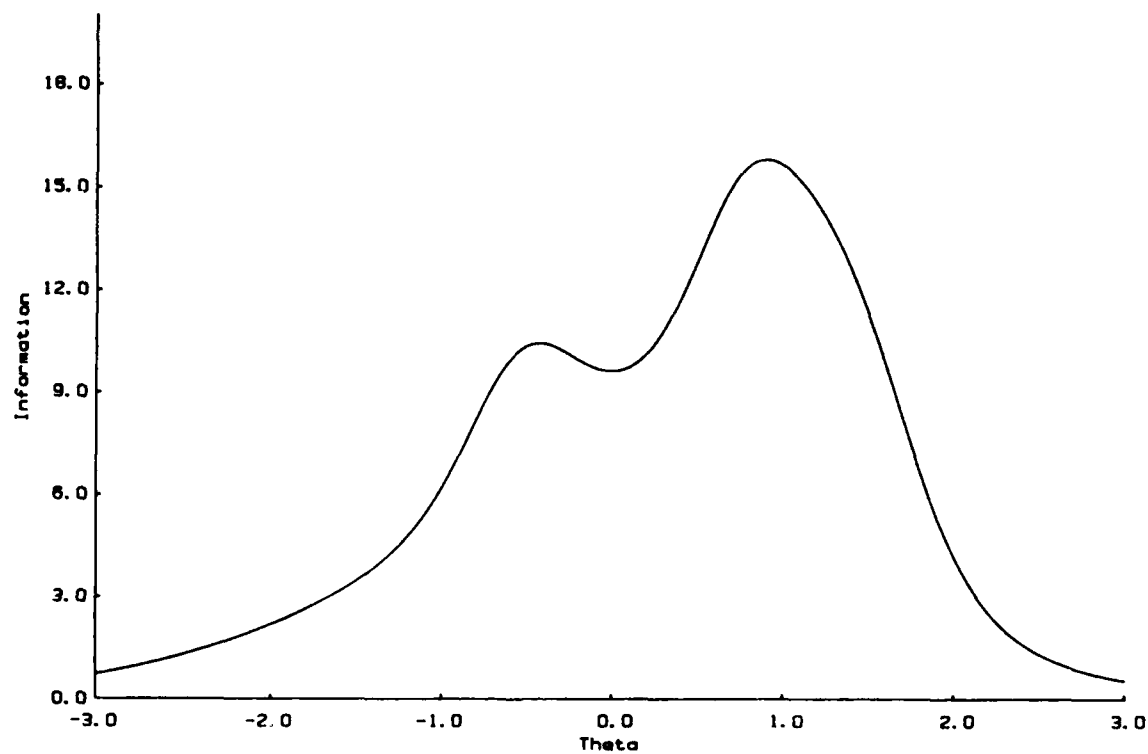


Figure A-40. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 13a (Total Sample).

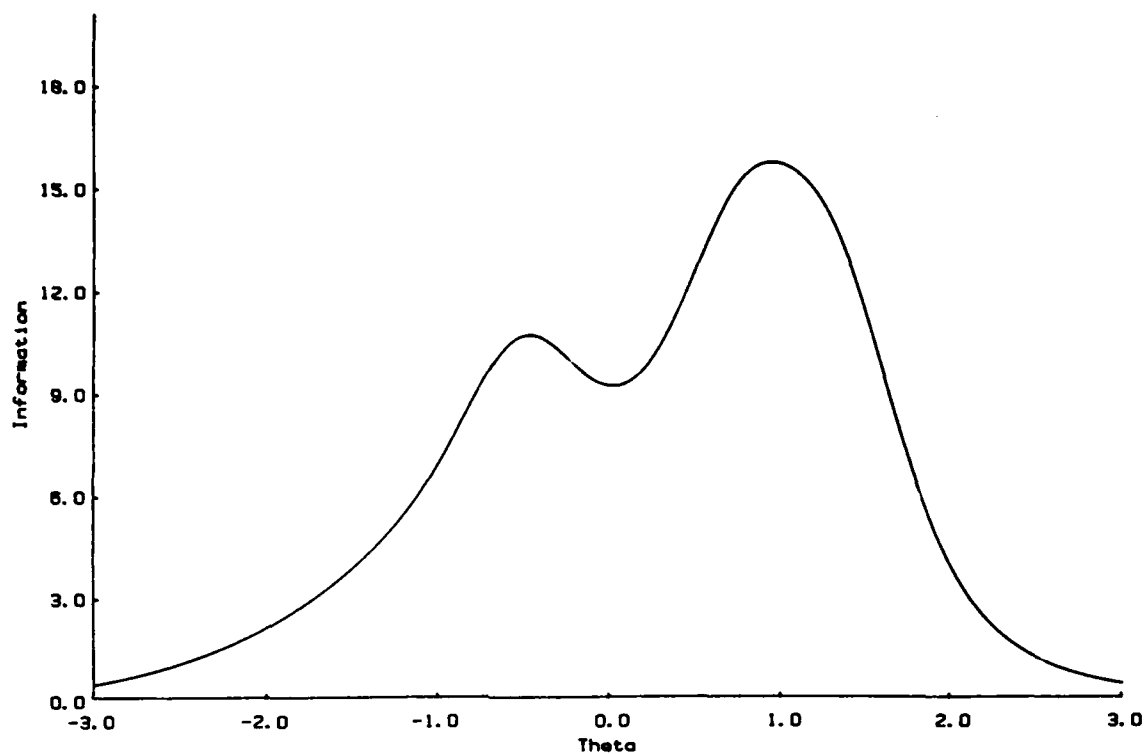


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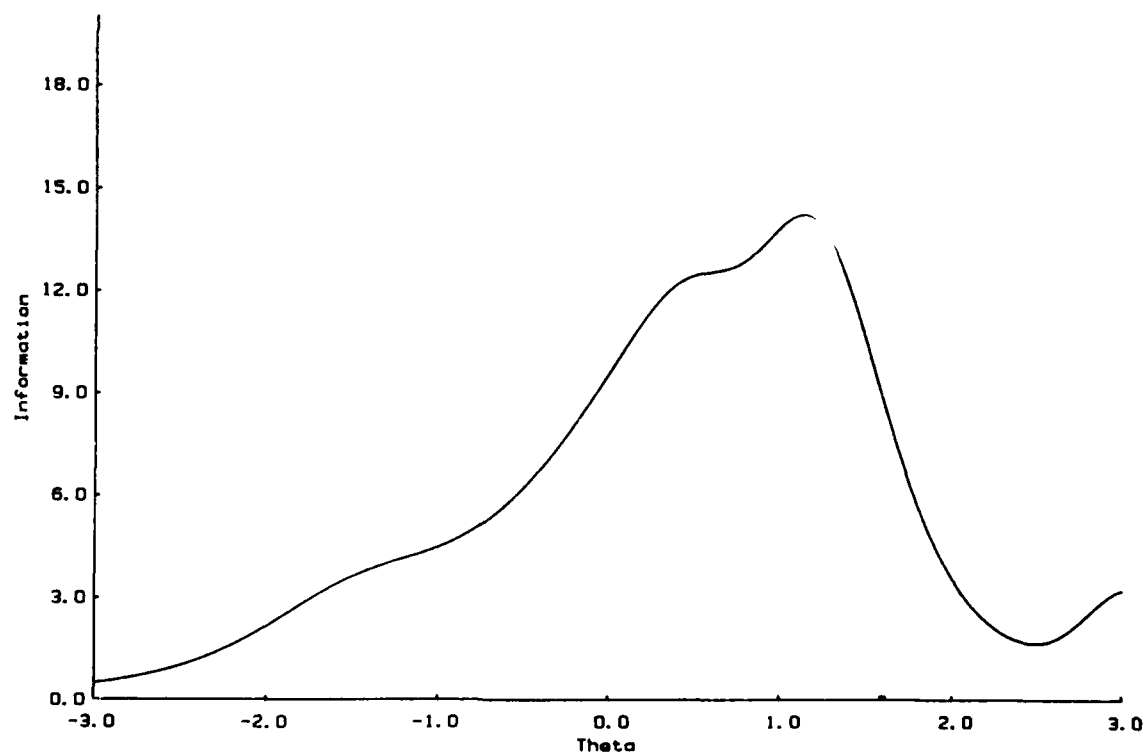


Figure A-42. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 13c (Total Sample).

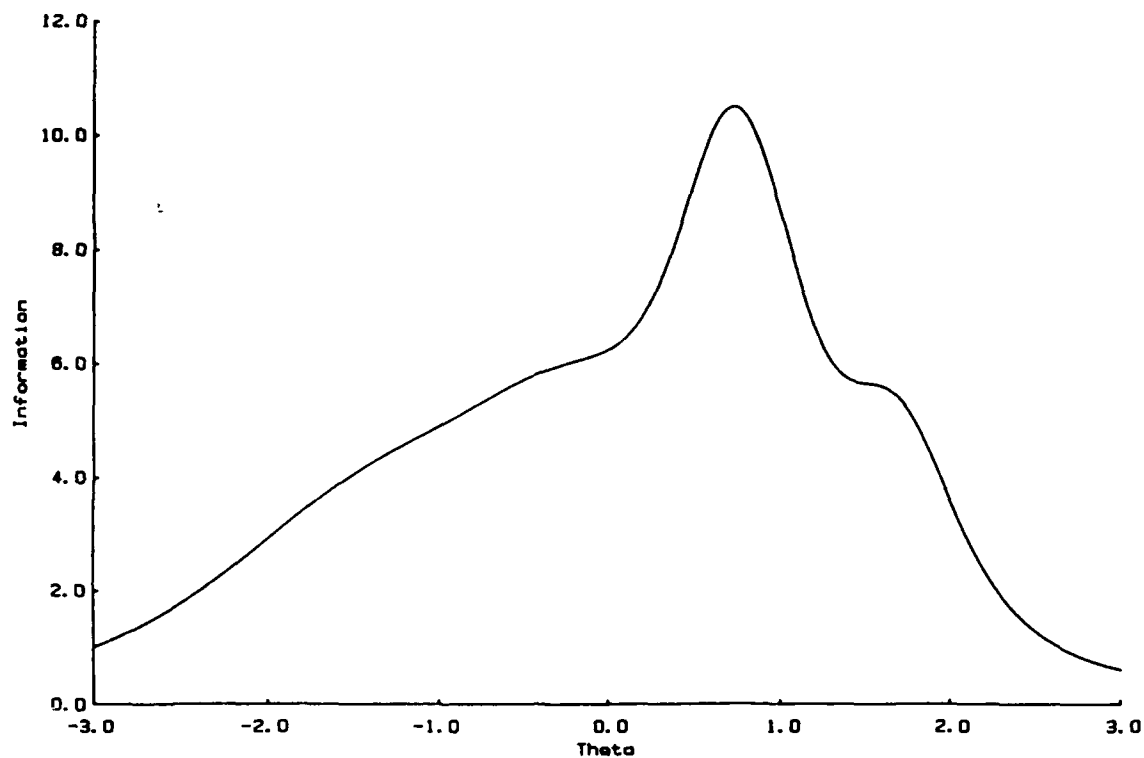


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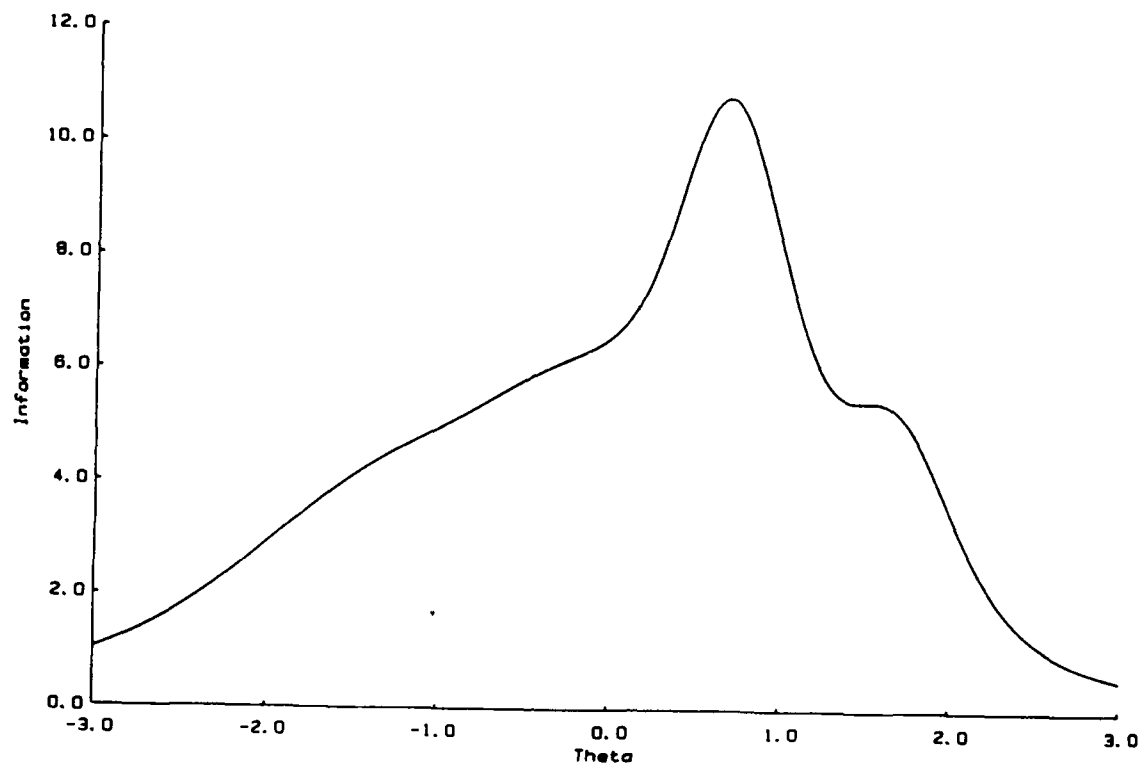


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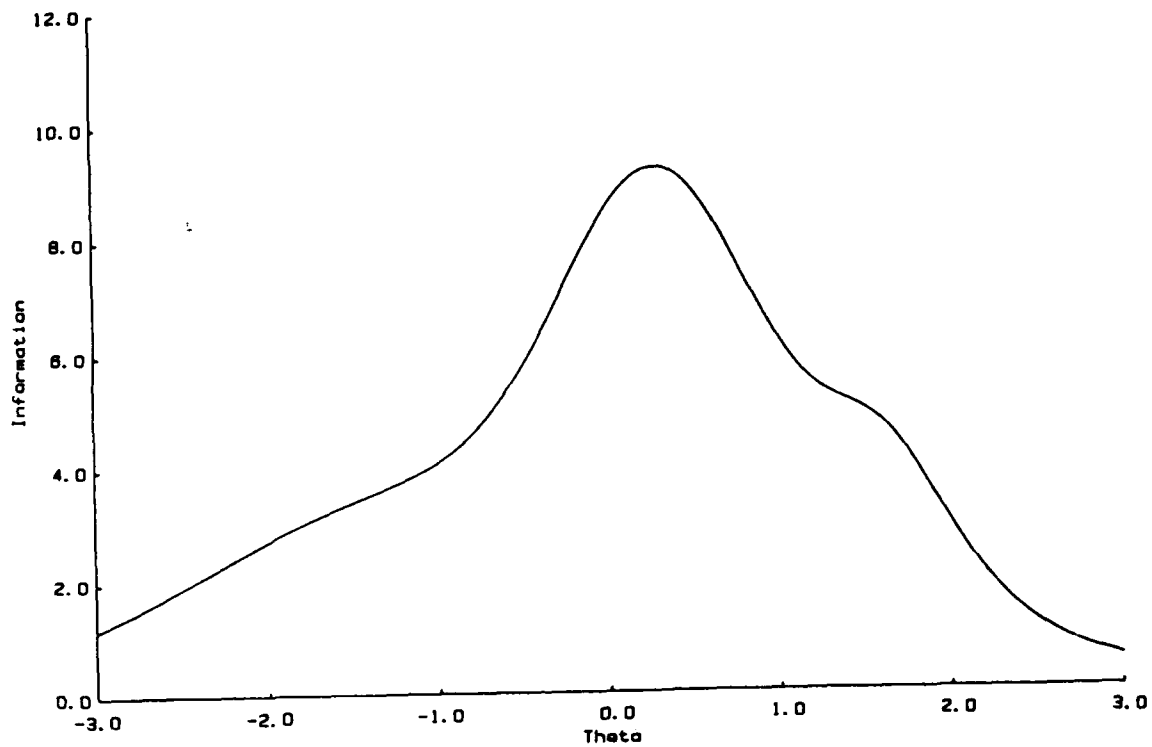


Figure A-45. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 12a (Total Sample).

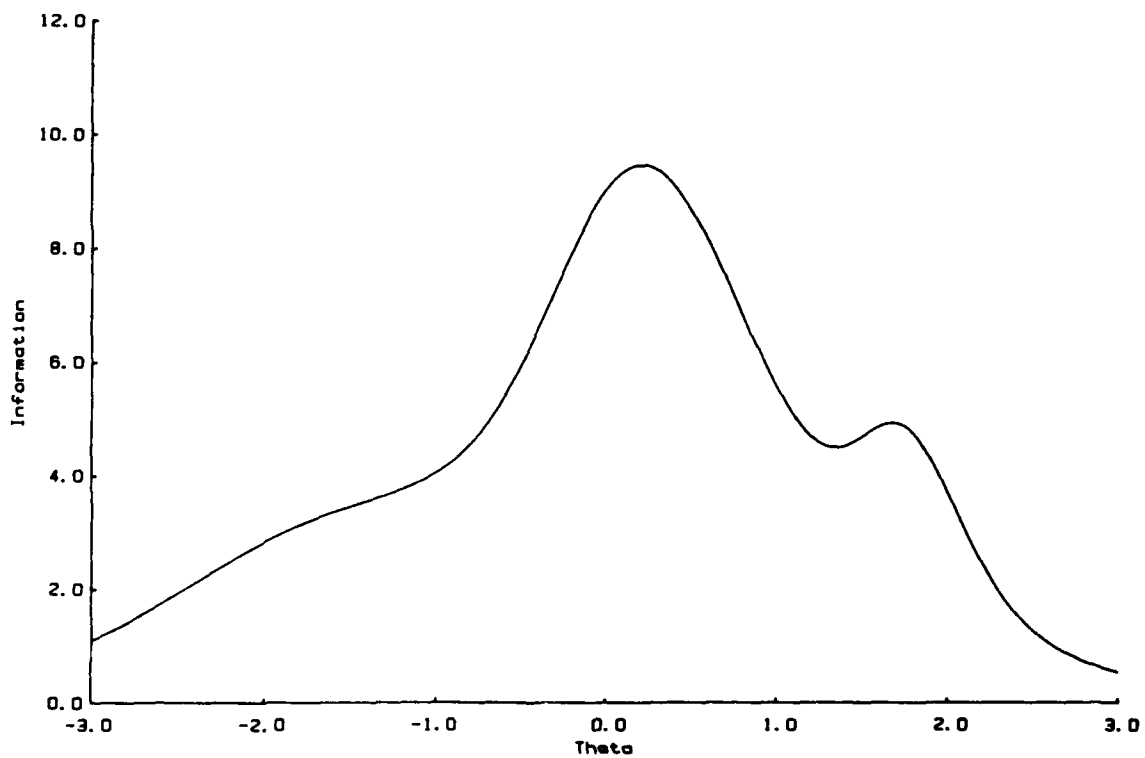


Figure A-46. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 12b (Total Sample).

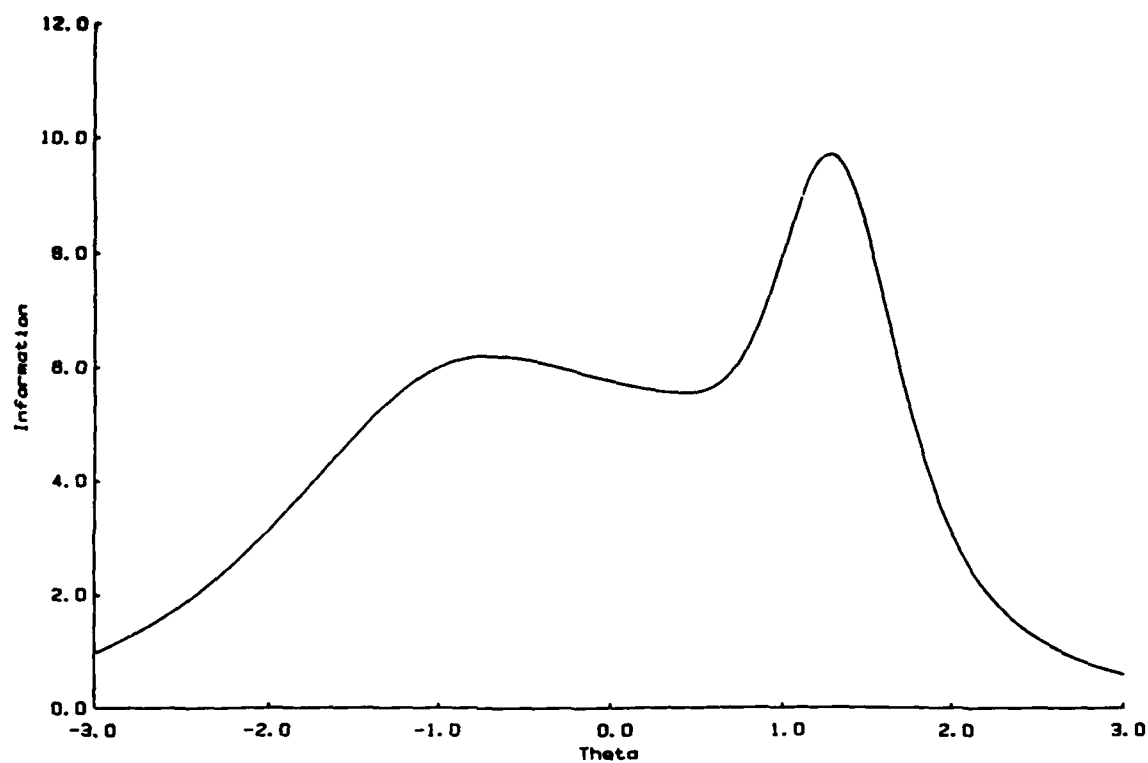


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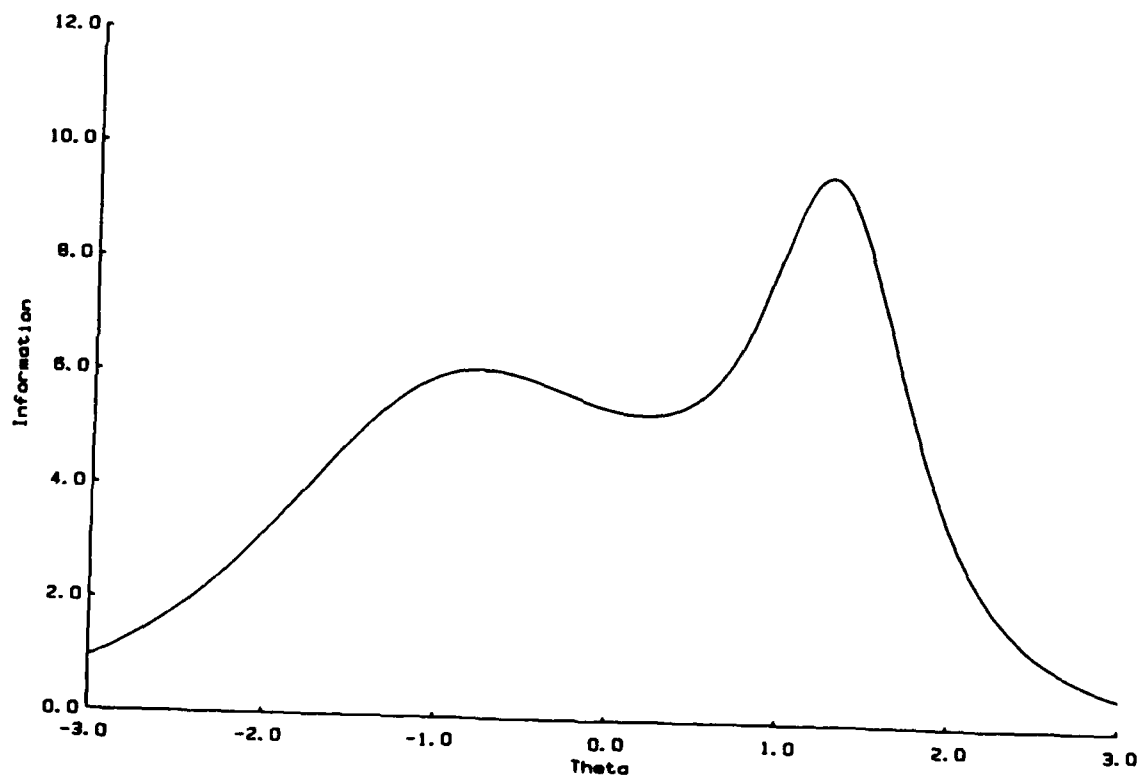


Figure A-48. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 13b (Total Sample).

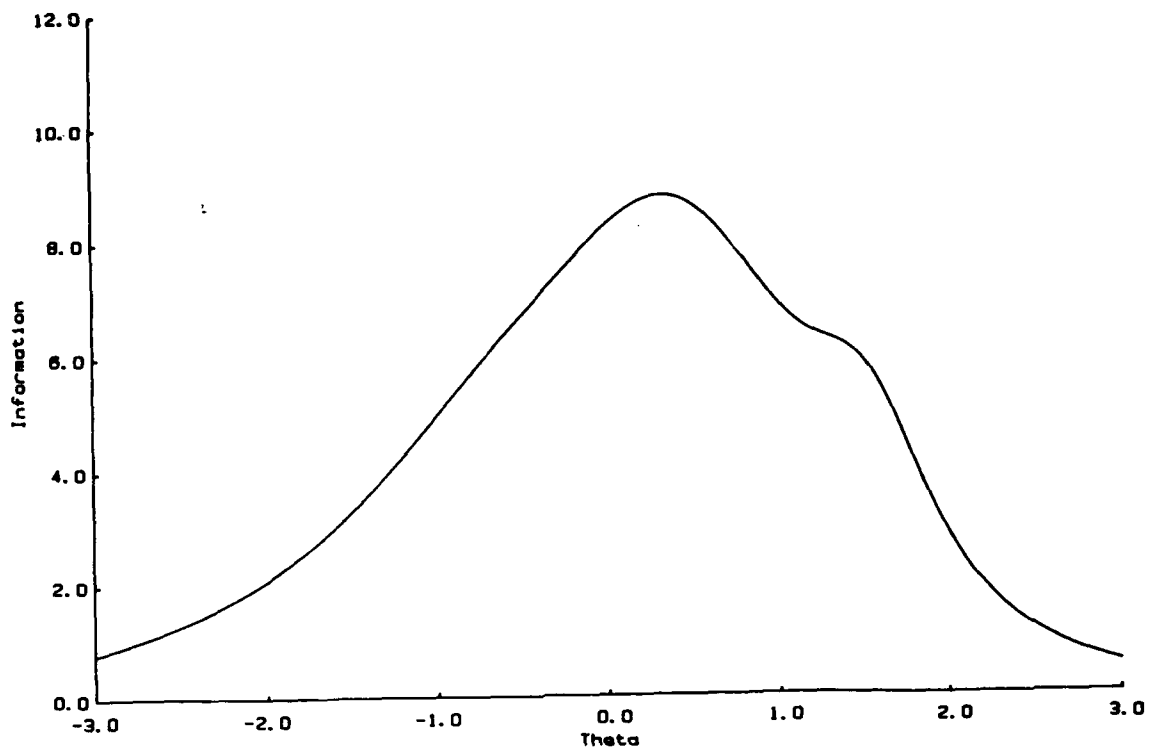


Figure A-49. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 13c (Total Sample).

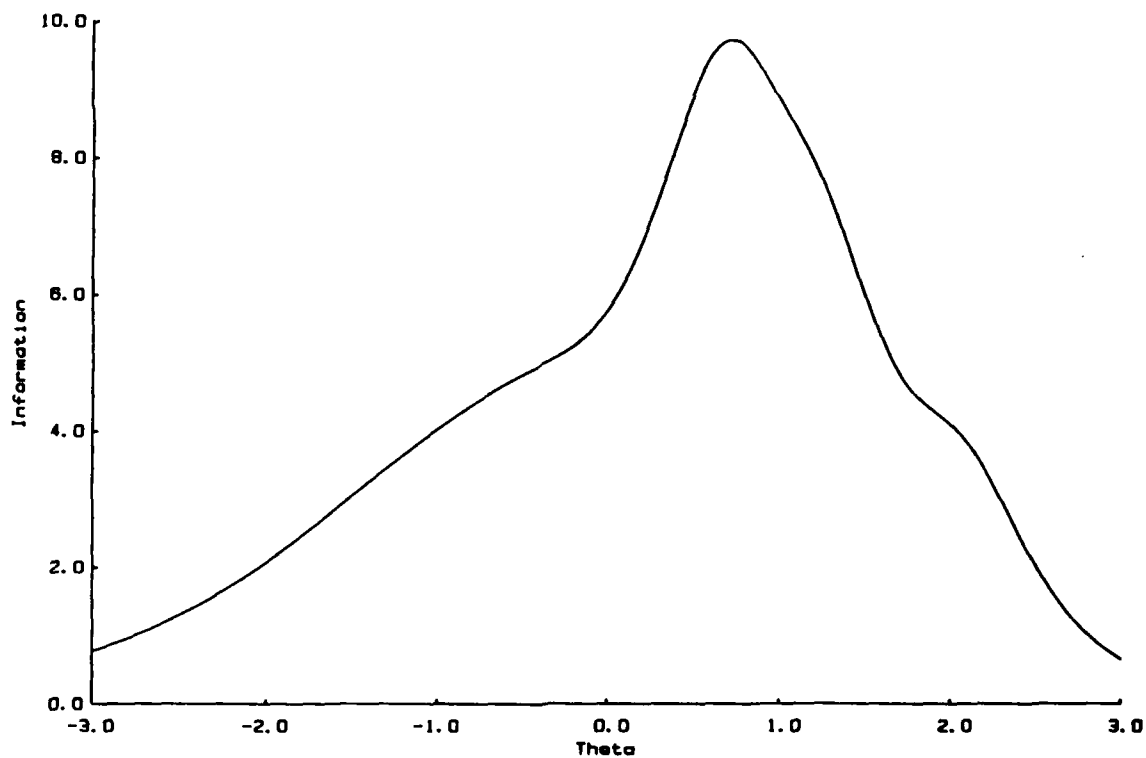


Figure A-50. Test Information Curve for Electronics Information Subtest on ASVAB Form 11a (Total Sample).

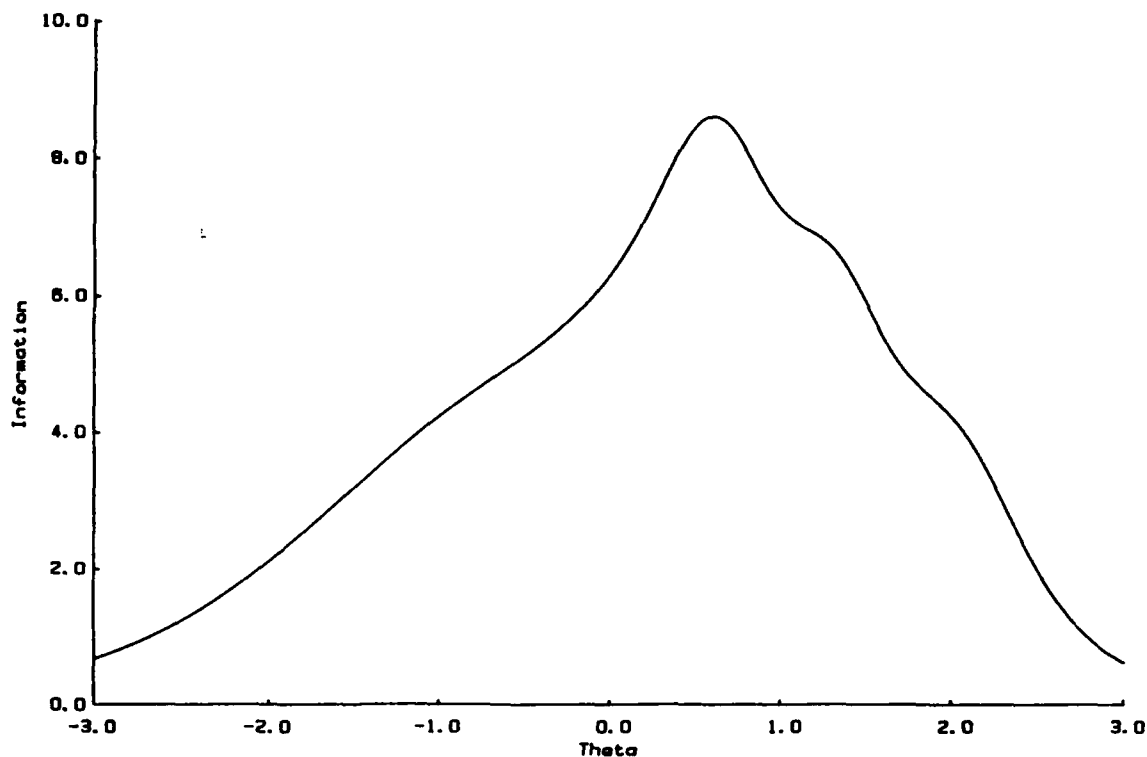


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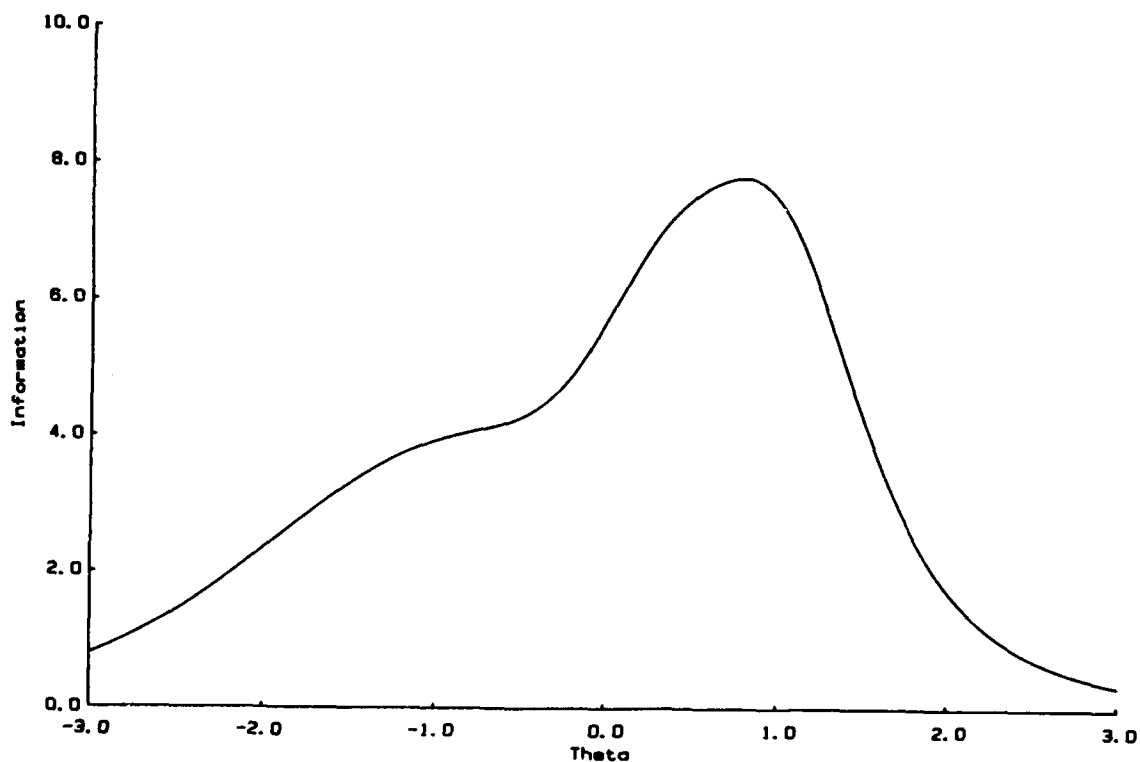


Figure A-52. Test Information Curve for Electronics Information Subtest on ASVAB Form 12a (Total Sample).



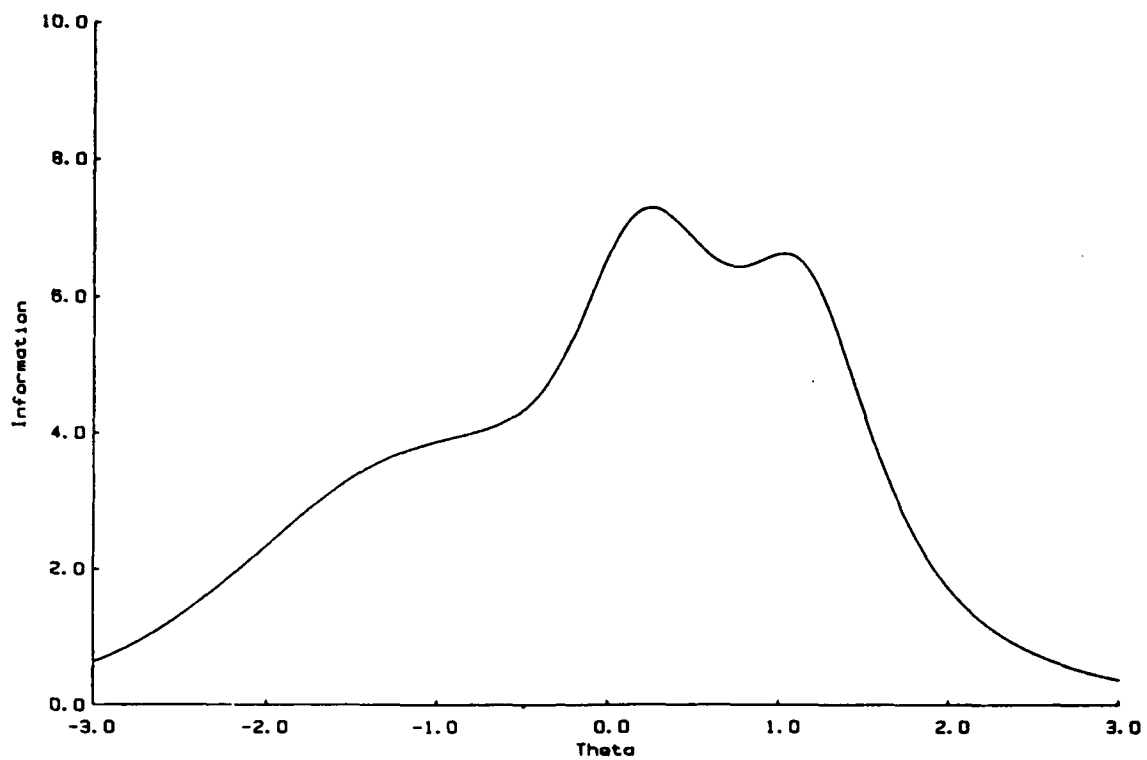


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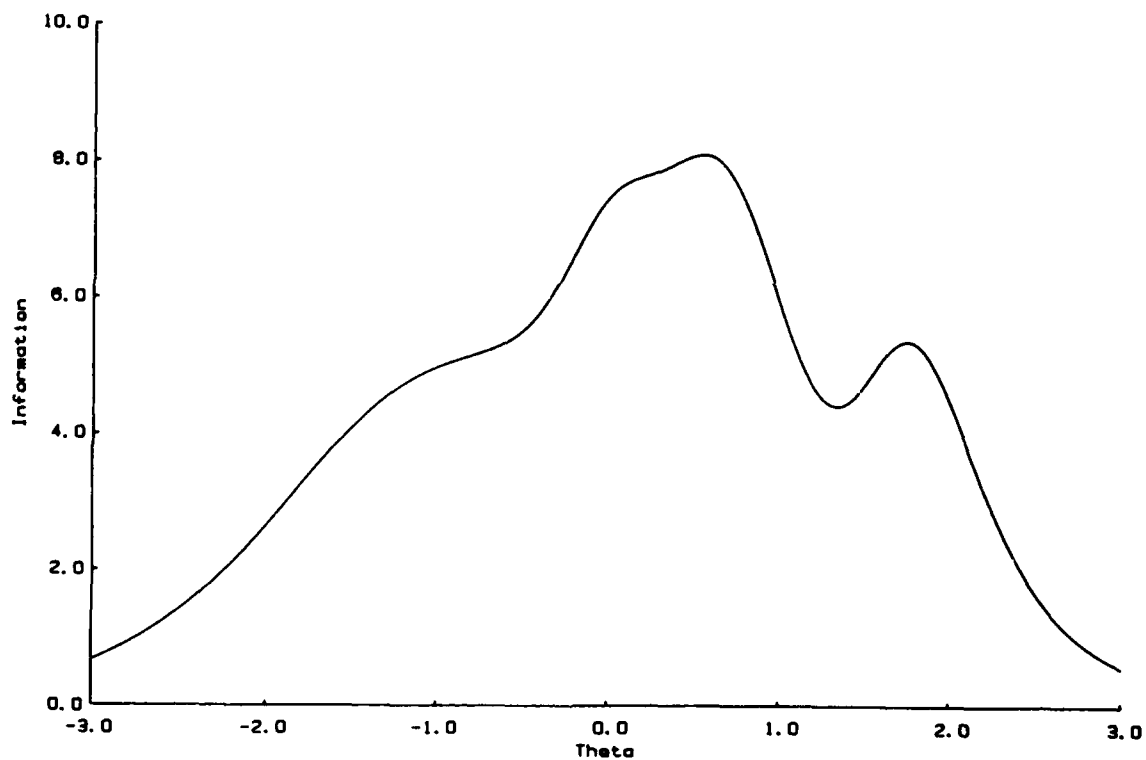


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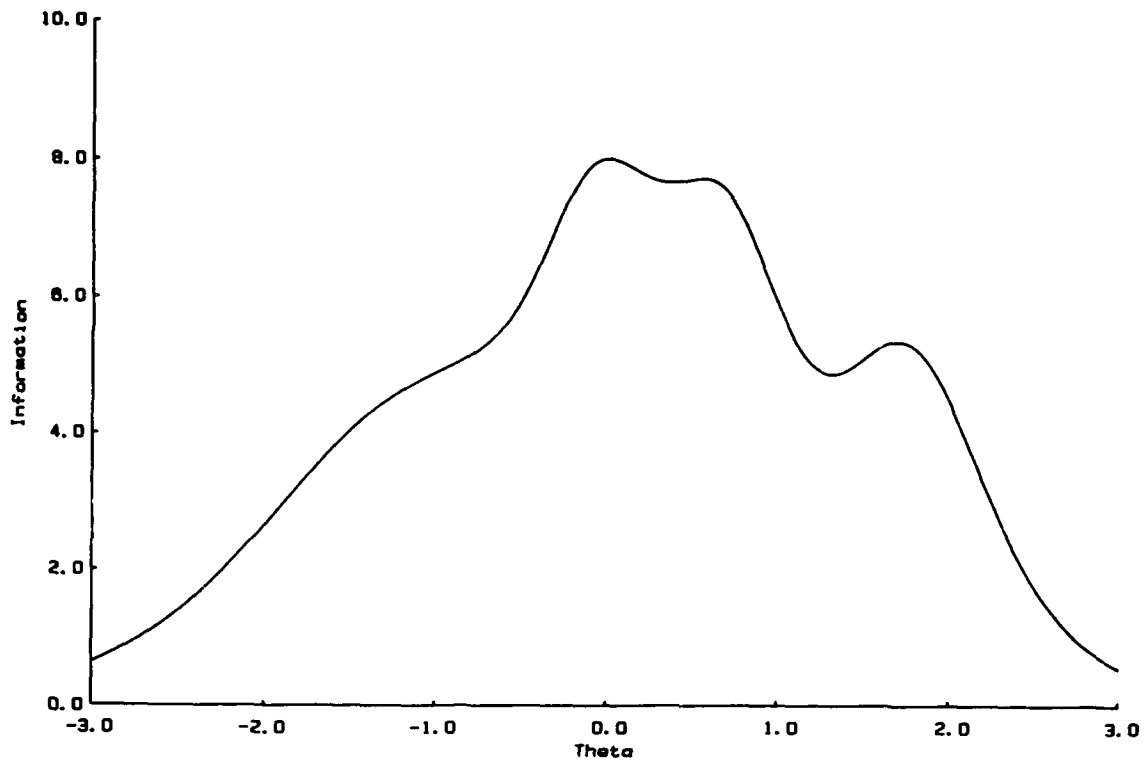


Figure A-55. Test Information Curve for Electronics Information Subtest on ASVAB Form 13b (Total Sample).

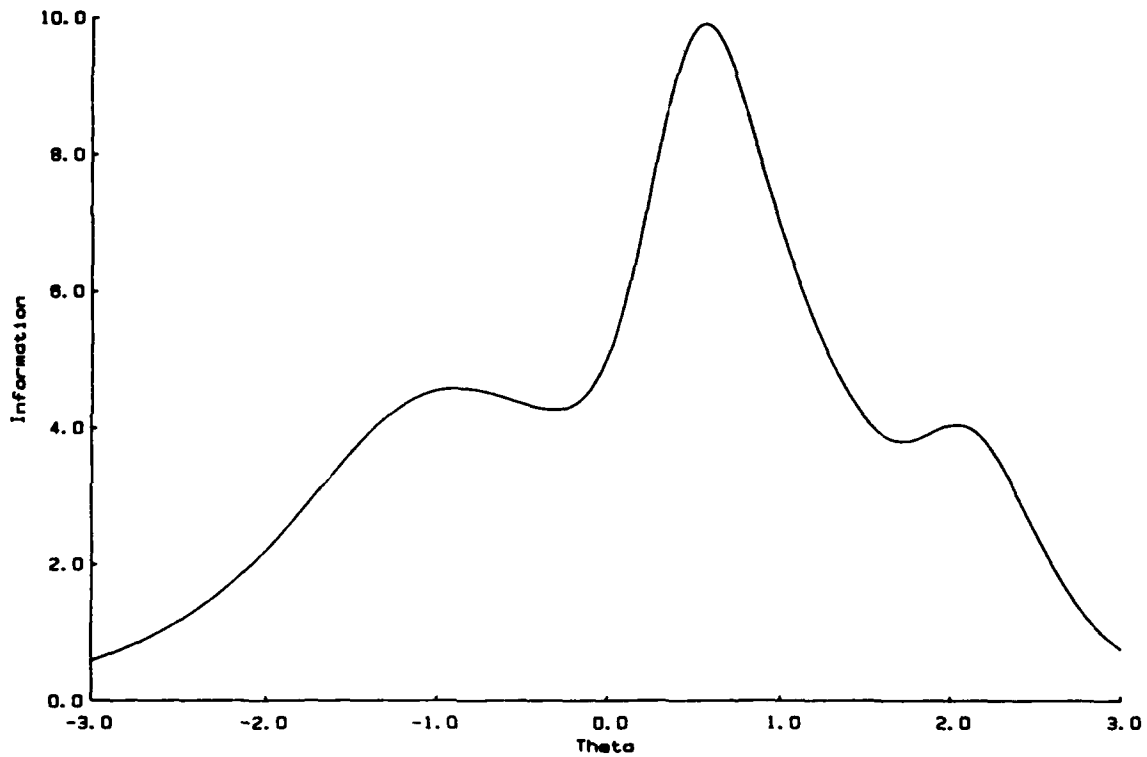


Figure A-56. Test Information Curve for Electronics Information Subtest on ASVAB Form 13c (Total Sample).

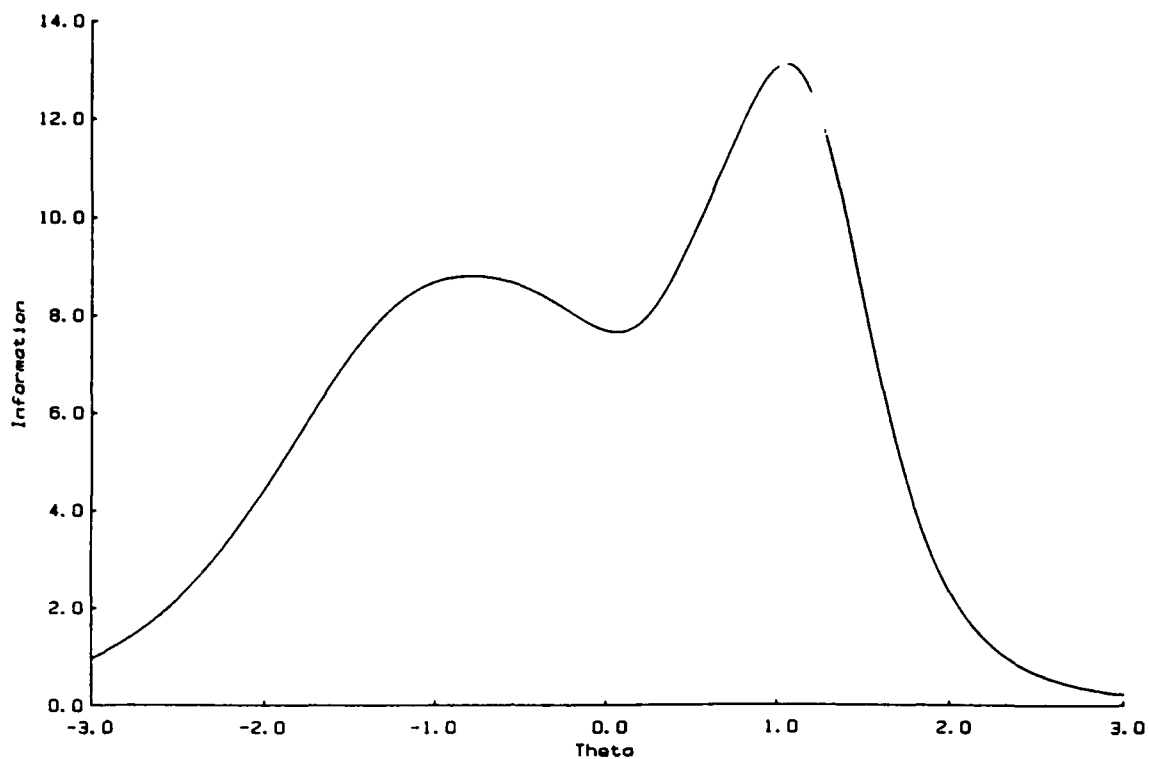


Figure A-57. Test Information Curve for General Science Subtest on ASVAB Form 11a (Male Sample).

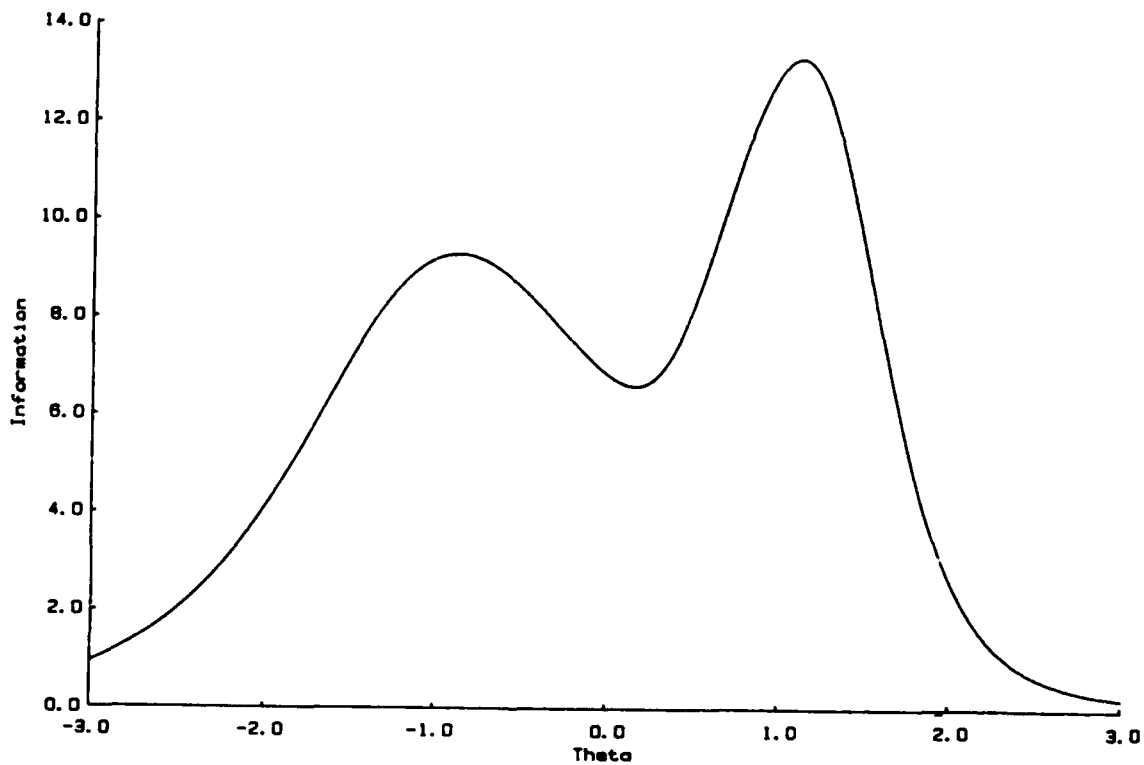


Figure A-58. Test Information Curve for General Science Subtest on ASVAB Form 11b (Male Sample).

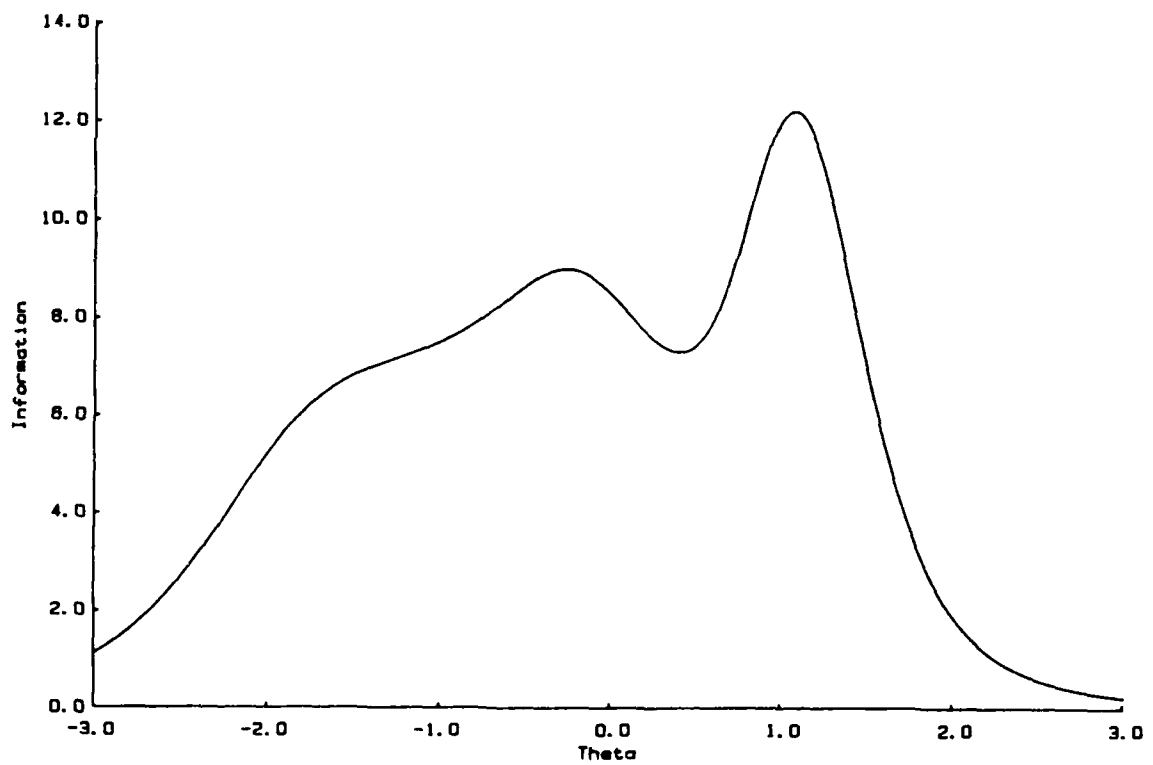


Figure A-59. Test Information Curve for General Science Subtest on ASVAB Form 12a (Male Sample).

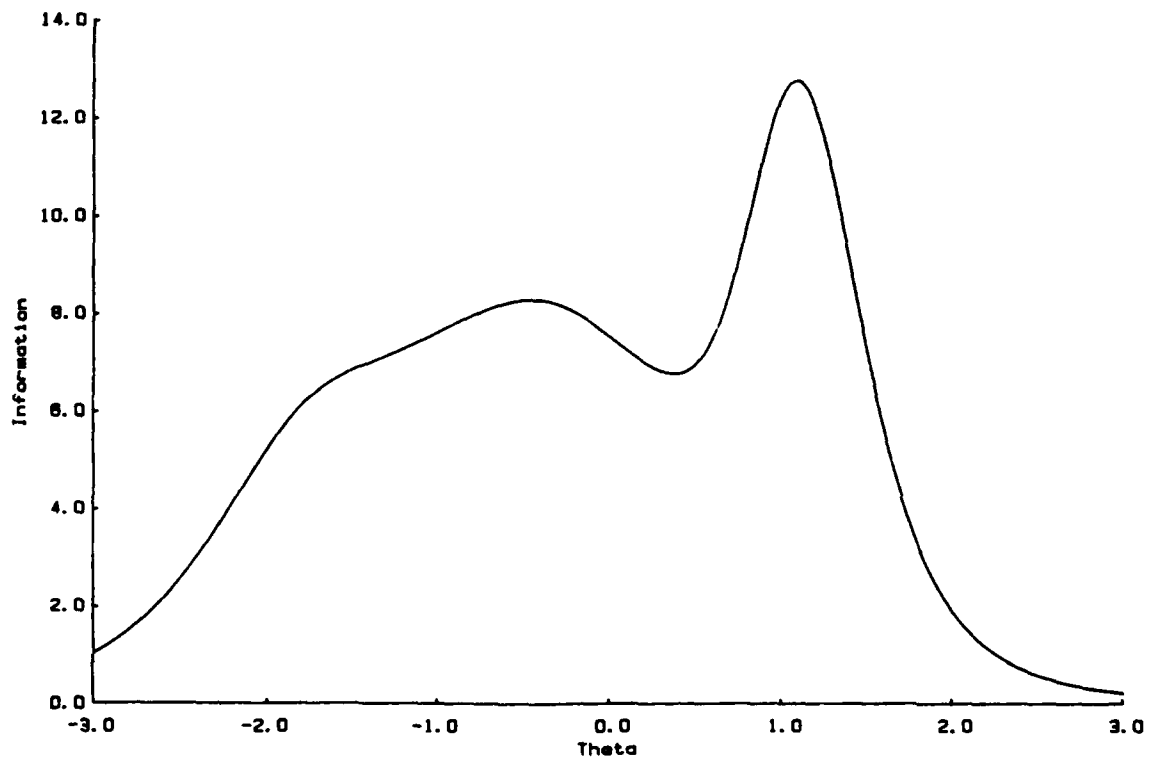


Figure A-60. Test Information Curve for General Science Subtest on ASVAB Form 12b (Male Sample).

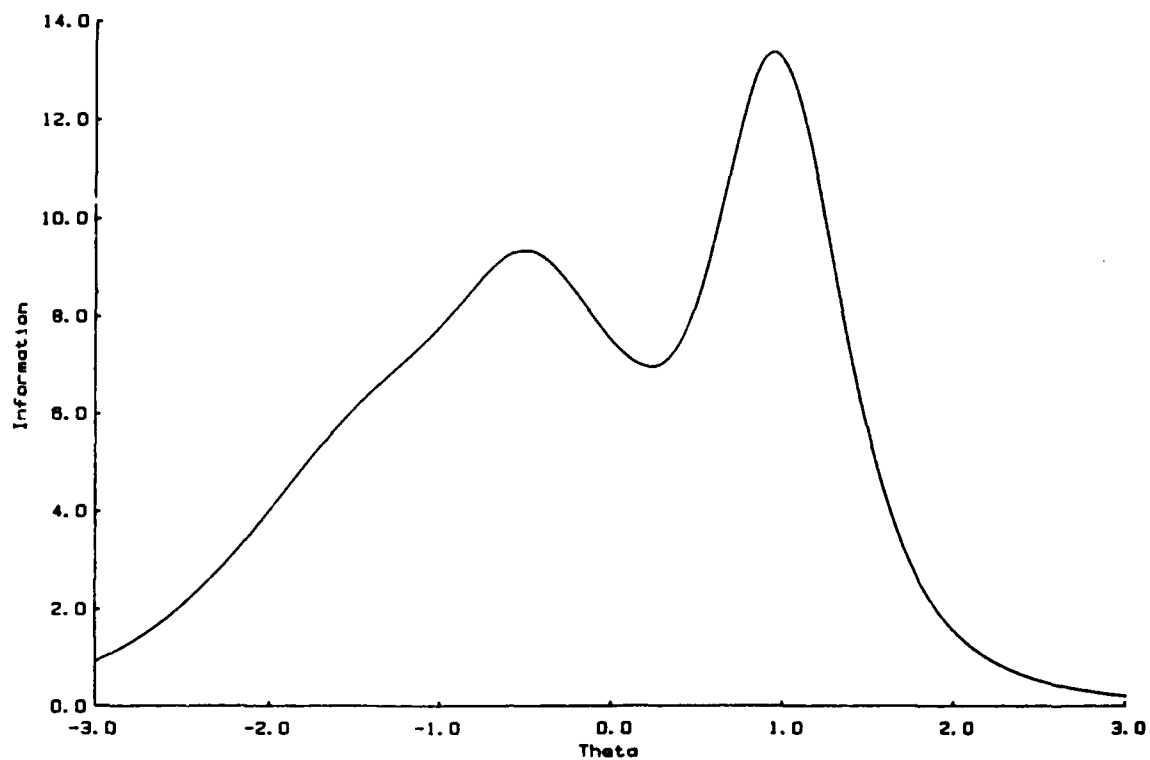


Figure A-61. Test Information Curve for General Science Subtest on ASVAB Form 13a (Male Sample).

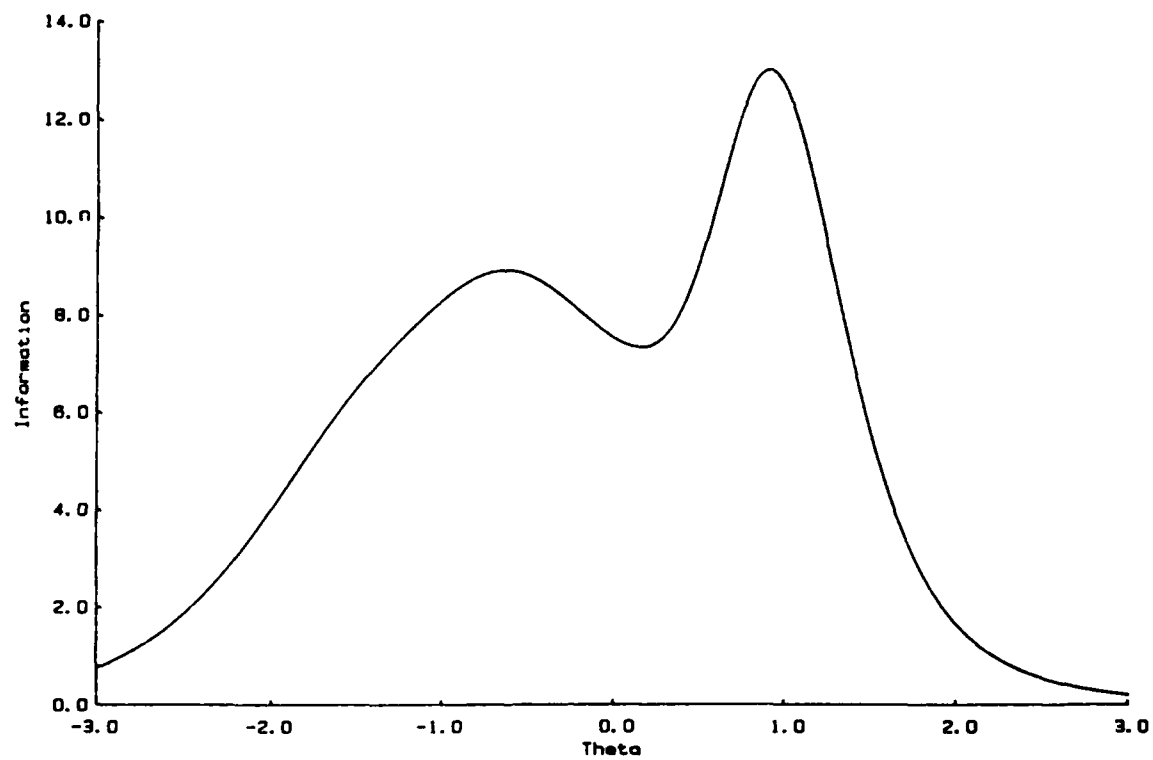


Figure A-62. Test Information Curve for General Science Subtest on ASVAB Form 13b (Male Sample).

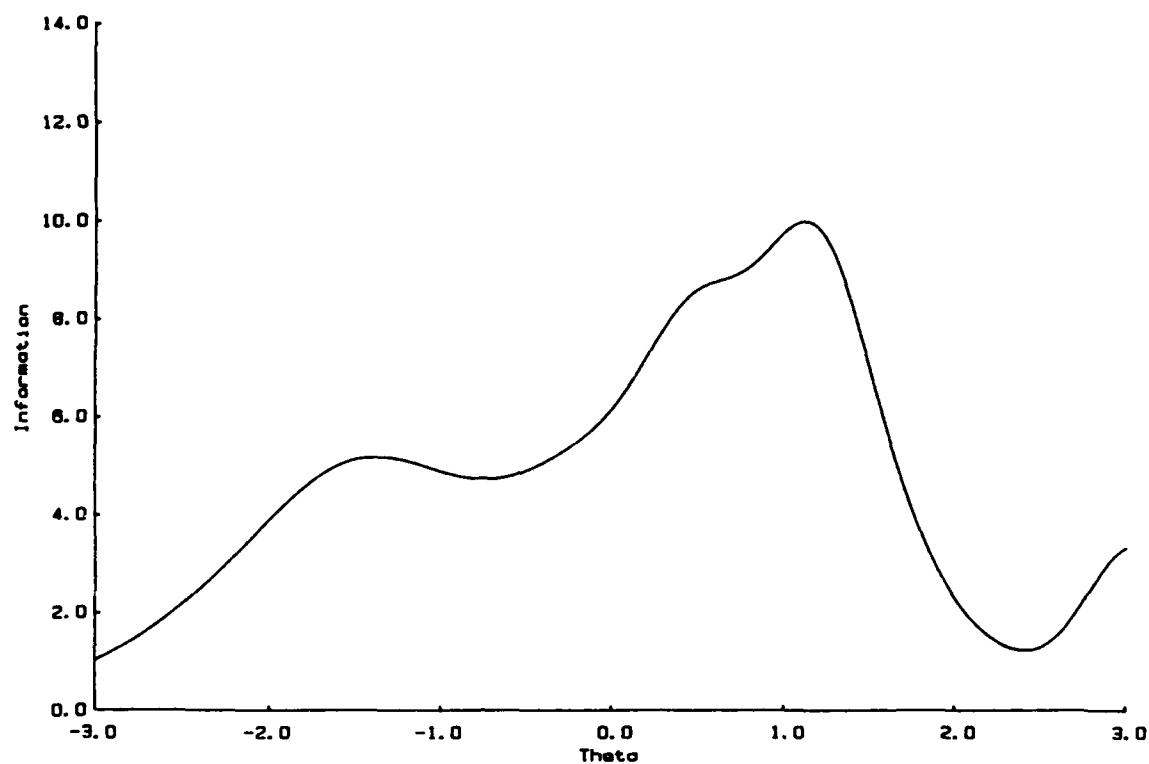


Figure A-83. Test Information Curve for General Science Subtest on ASVAB Form 13c (Male Sample).

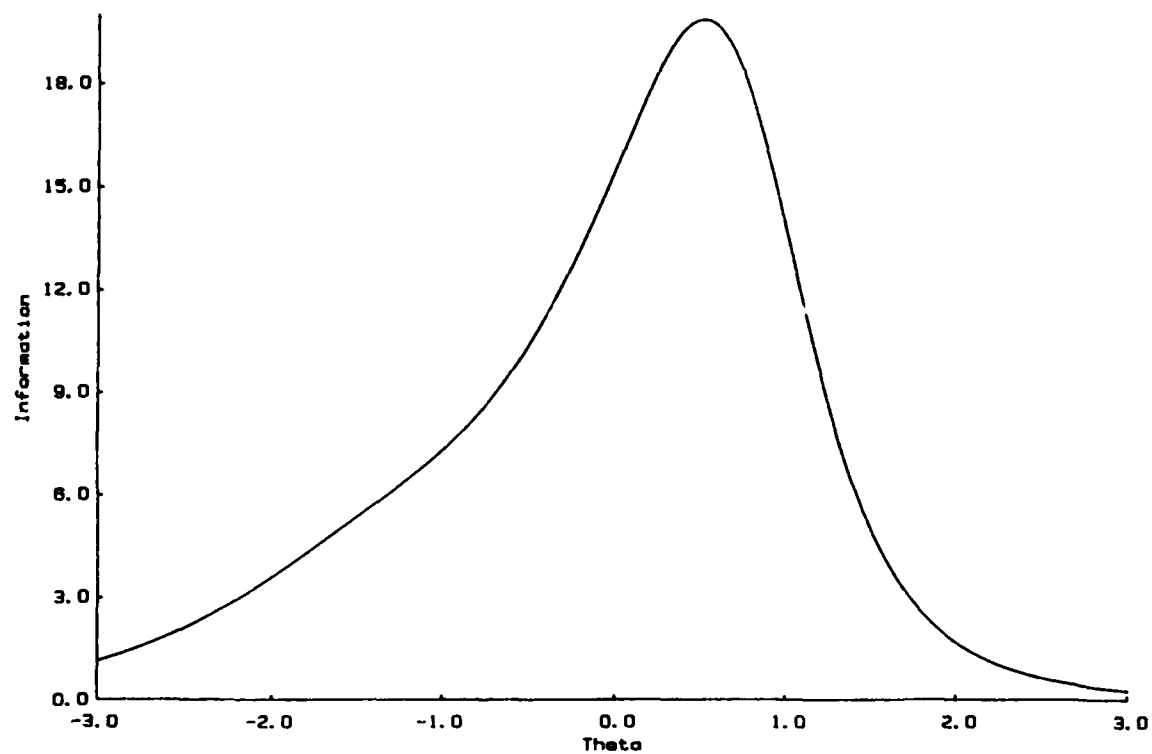


Figure A-84. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 11a (Male Sample).

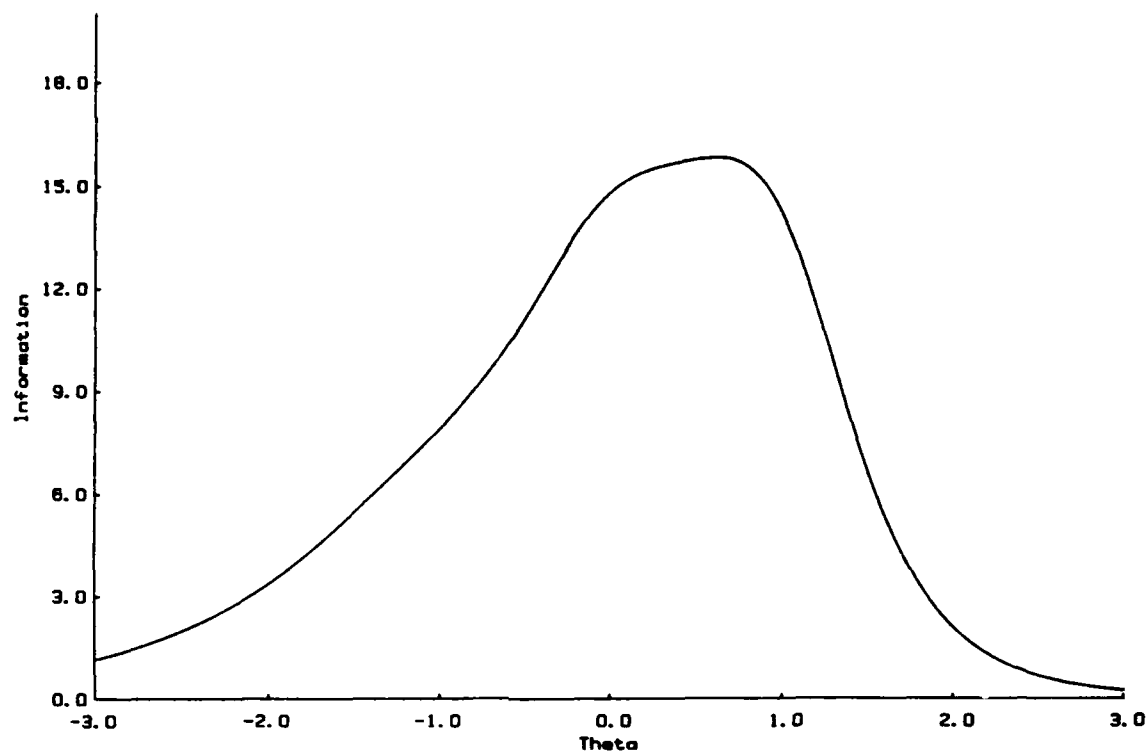


Figure A-65. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 11b (Male Sample).

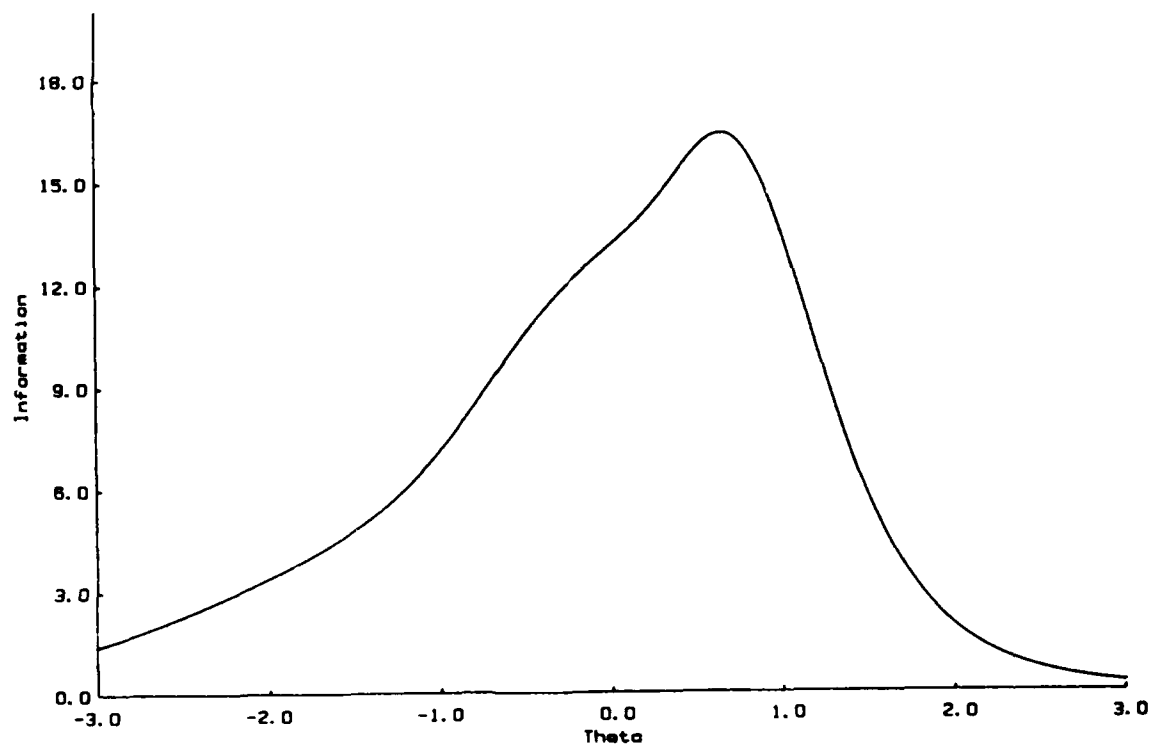


Figure A-66. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 12a (Male Sample).

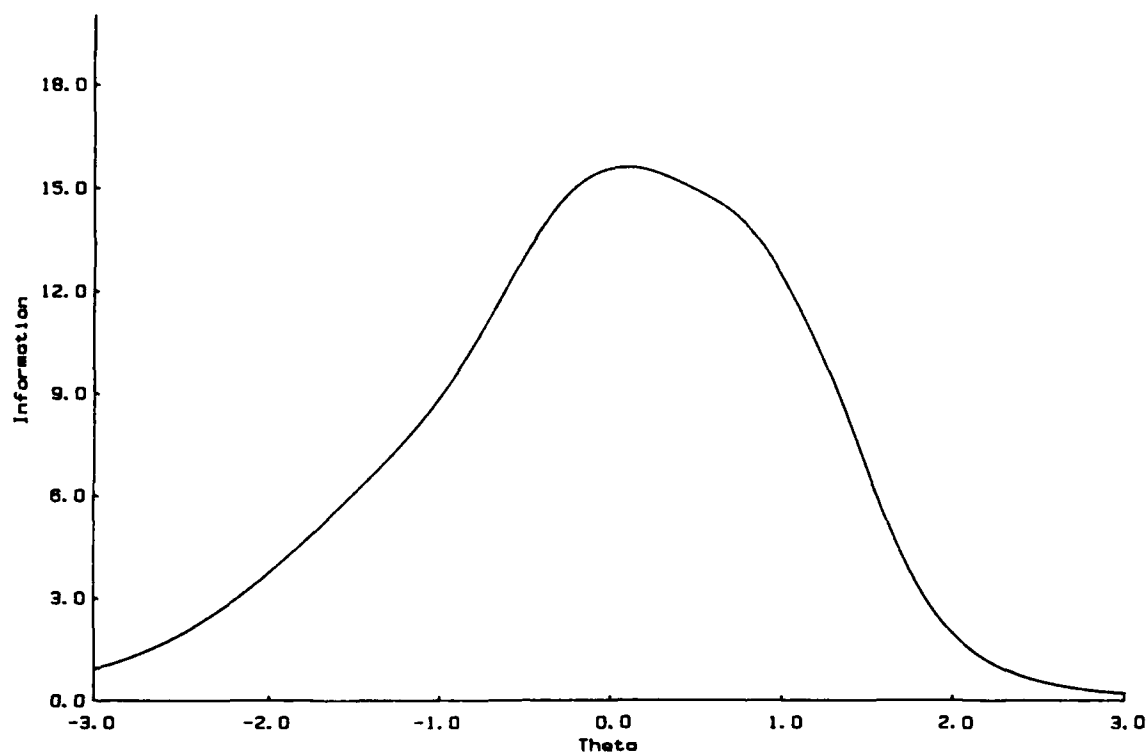


Figure A-87. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 12b (Male Sample).

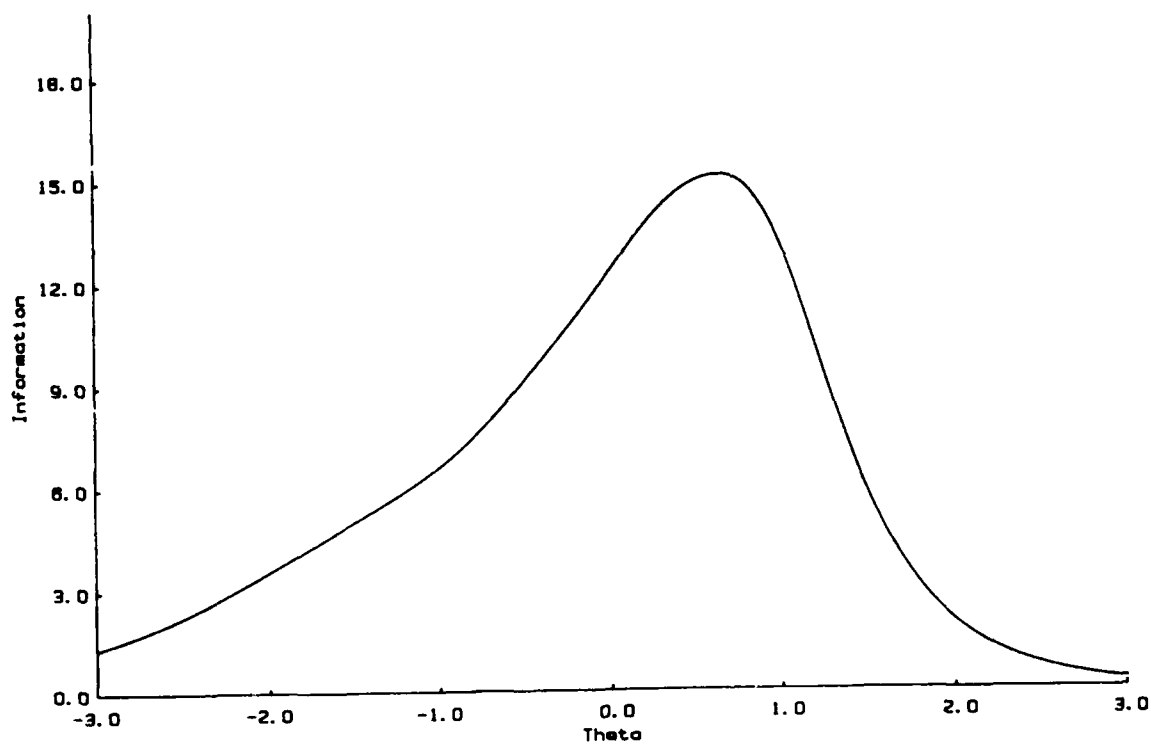


Figure A-88. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13a (Male Sample).



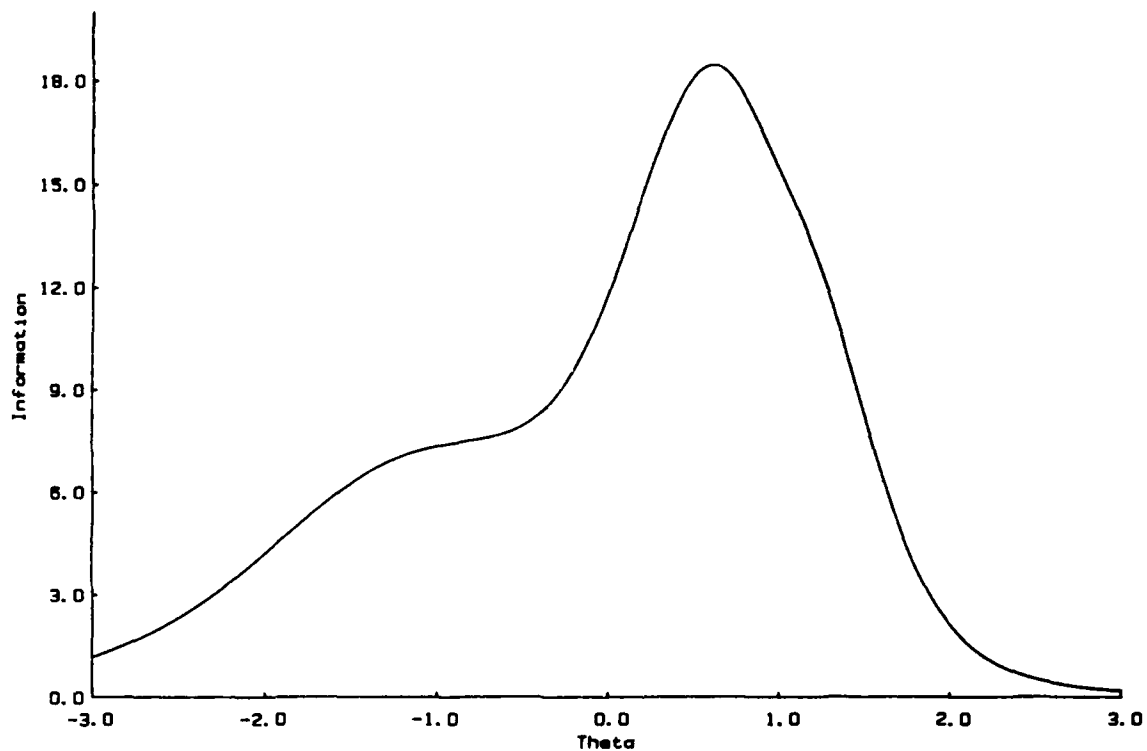


Figure A-69. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13b (Male Sample).

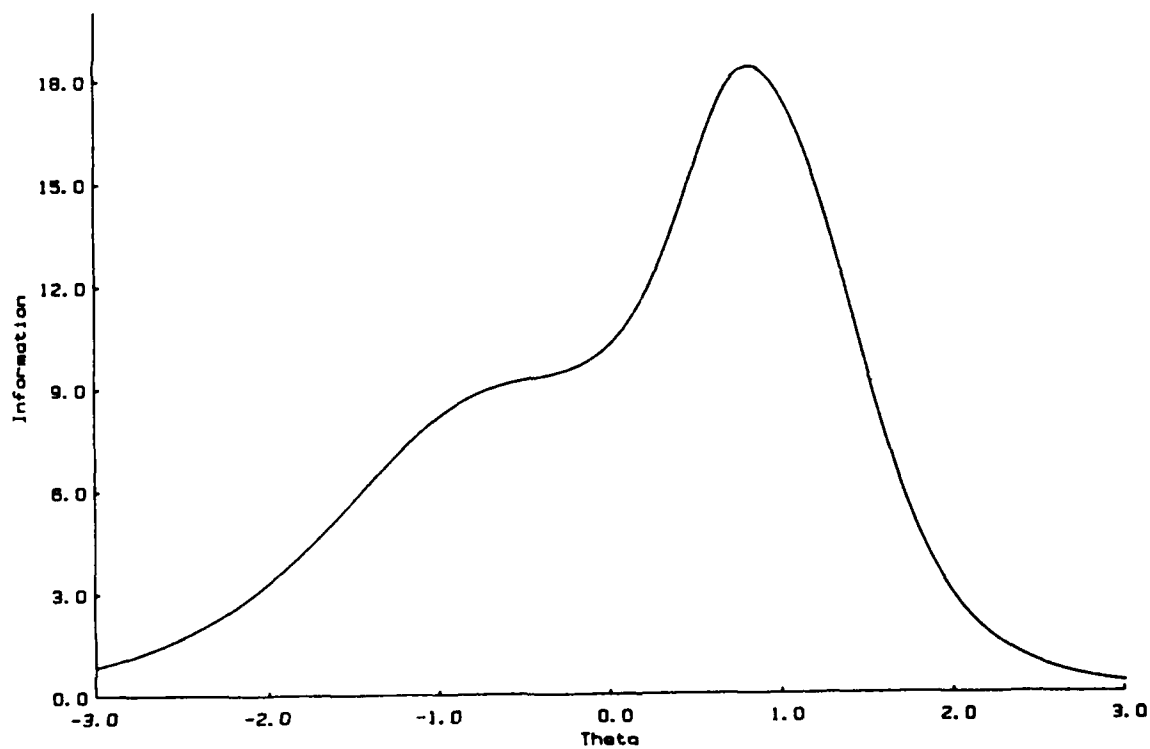


Figure A-70. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13c (Male Sample).

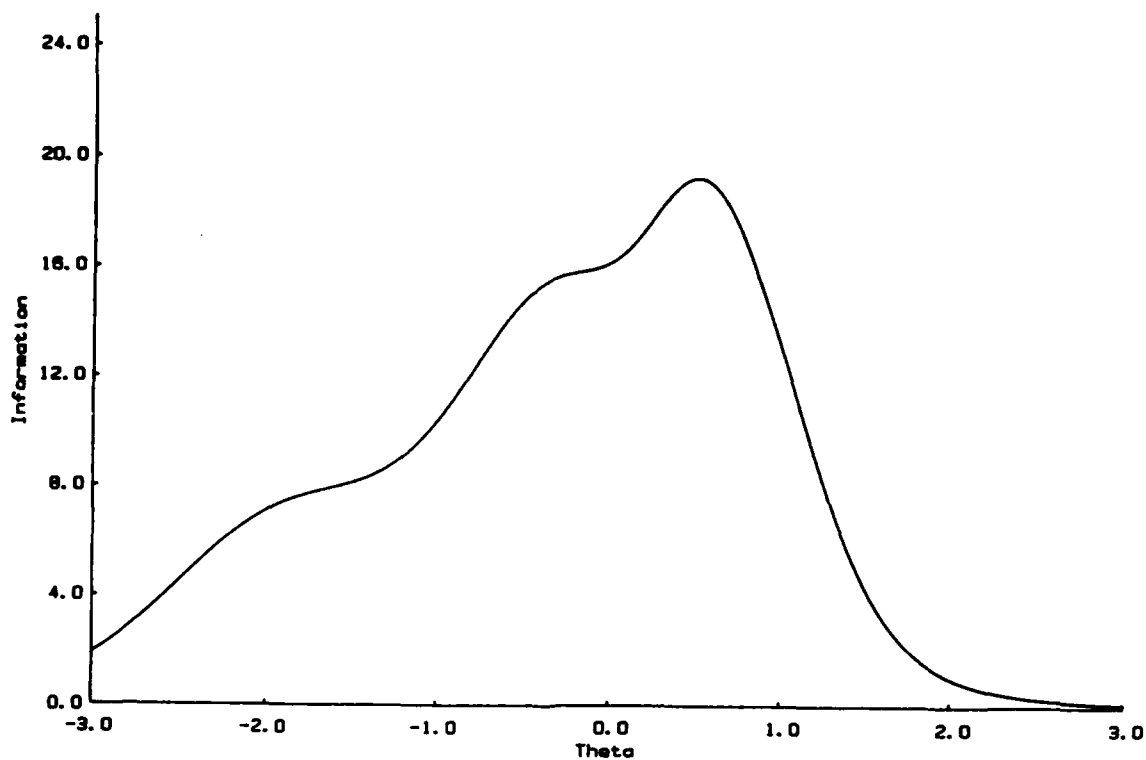


Figure A-71. Test Information Curve for Word Knowledge Subtest on ASVAB Form 11a (Male Sample).

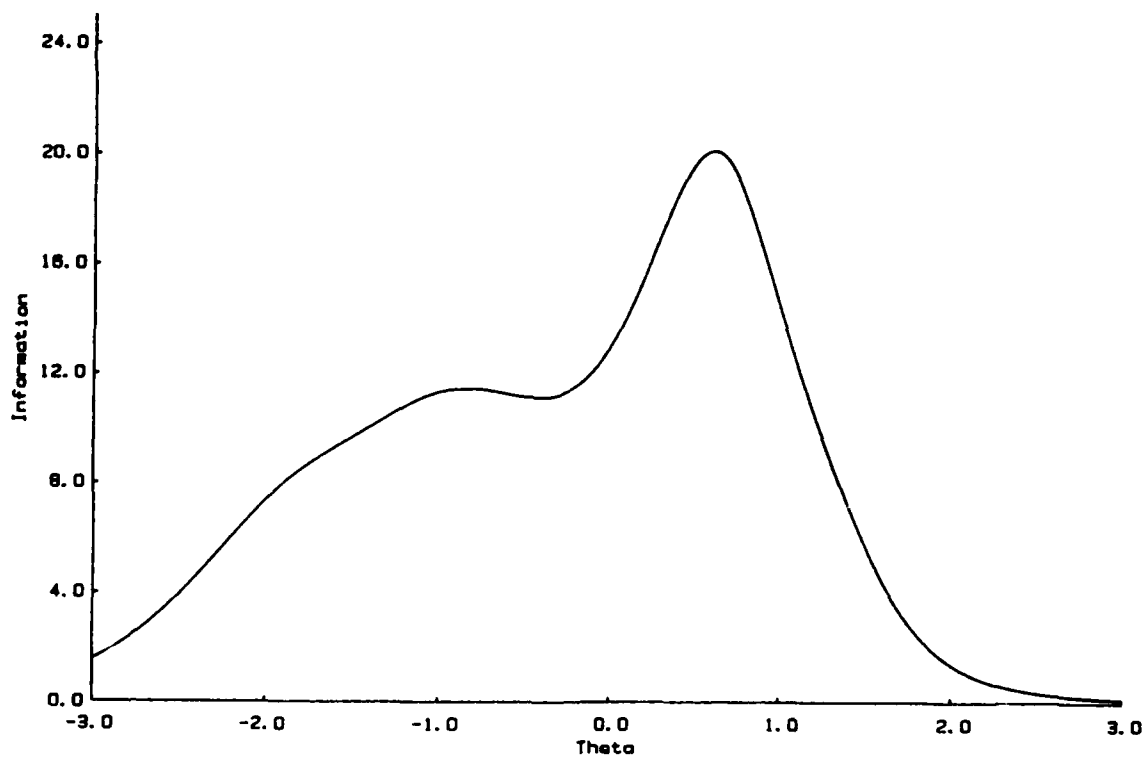


Figure A-72. Test Information Curve for Word Knowledge Subtest on ASVAB Form 11b (Male Sample).

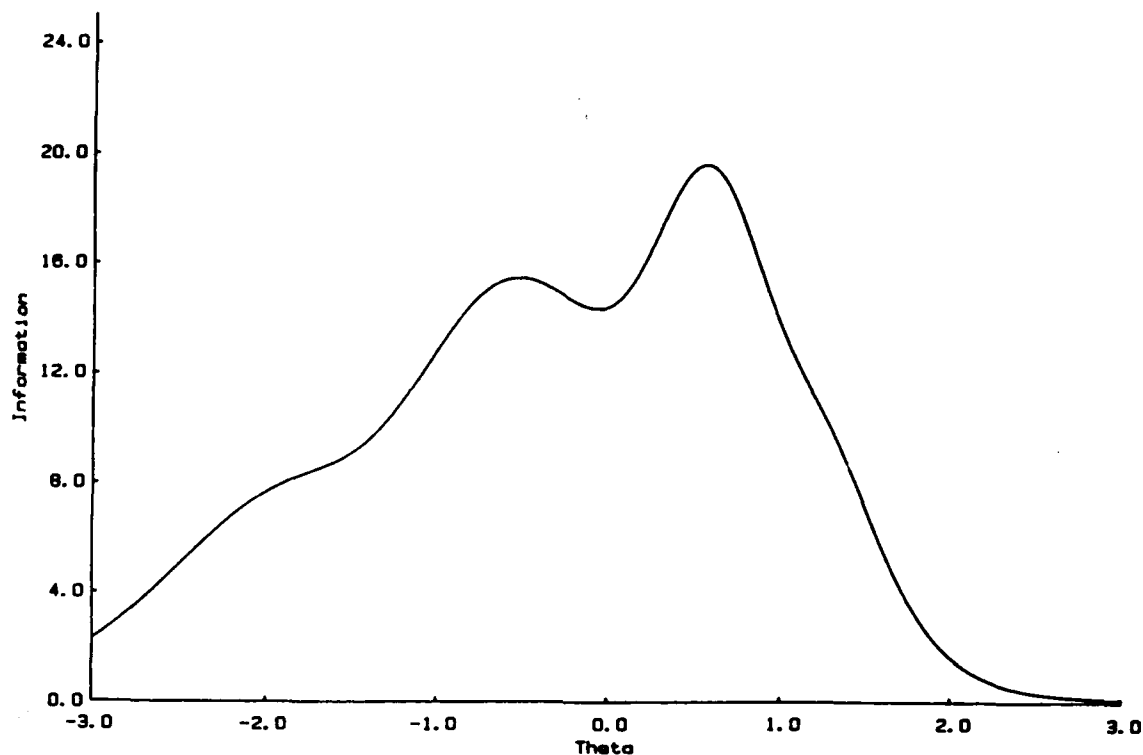


Figure A-73. Test Information Curve for Word Knowledge Subtest on ASVAB Form 12a (Male Sample).

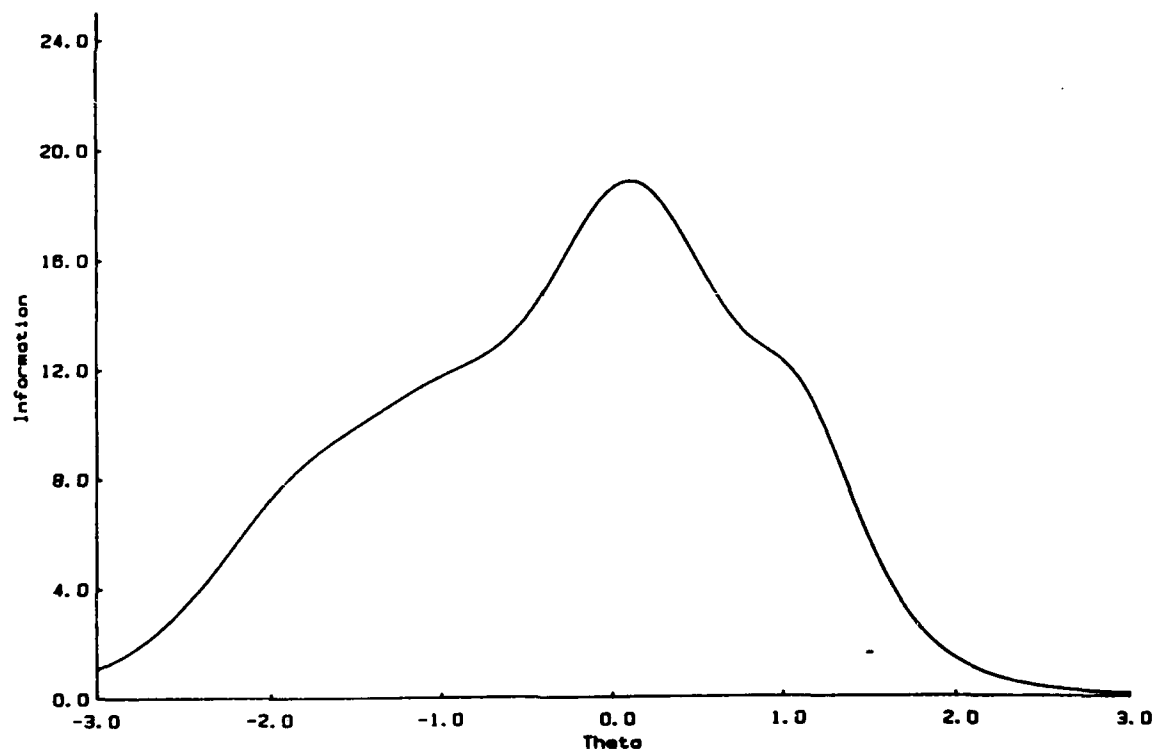


Figure A-74. Test Information Curve for Word Knowledge Subtest on ASVAB Form 12b (Male Sample).

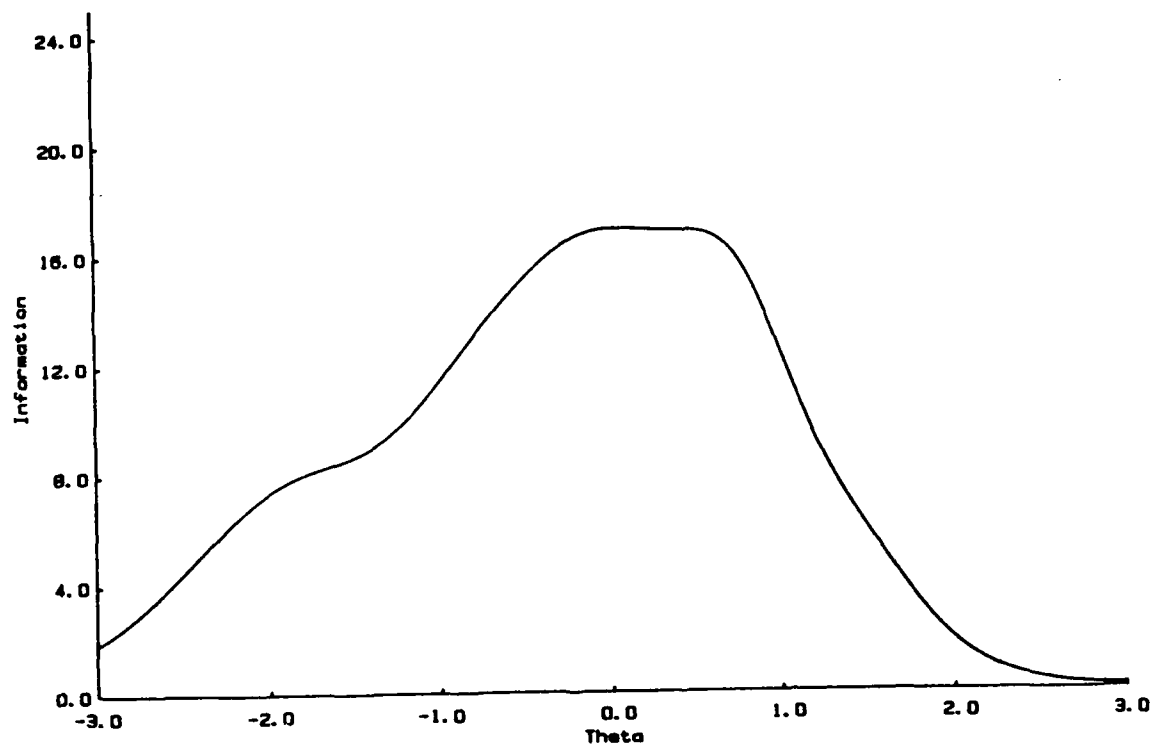


Figure A-75. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13a (Male Sample).

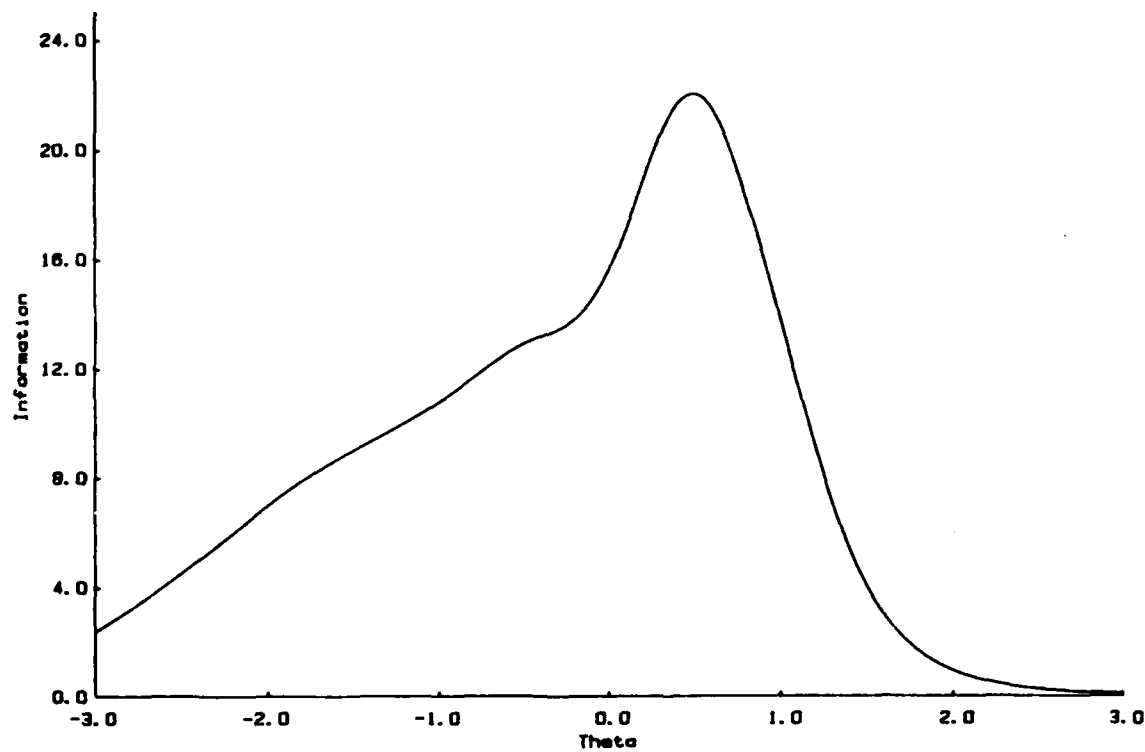


Figure A-76. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13b (Male Sample).

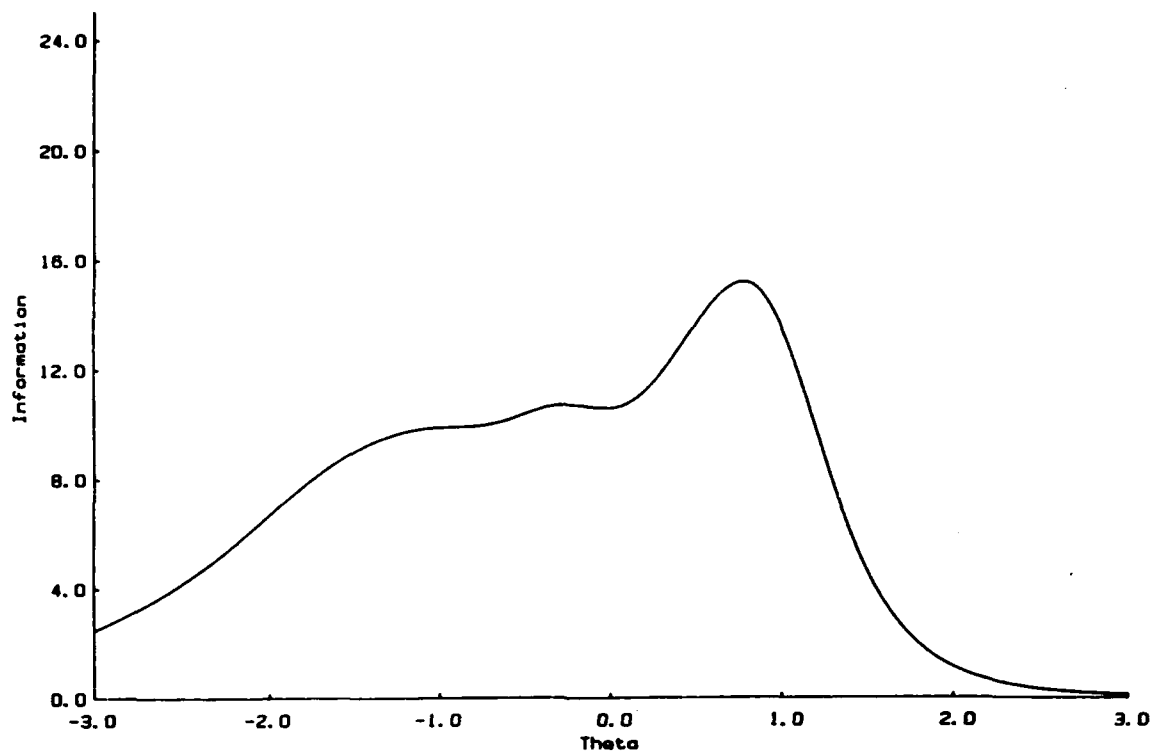


Figure A-77. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13c (Male Sample).

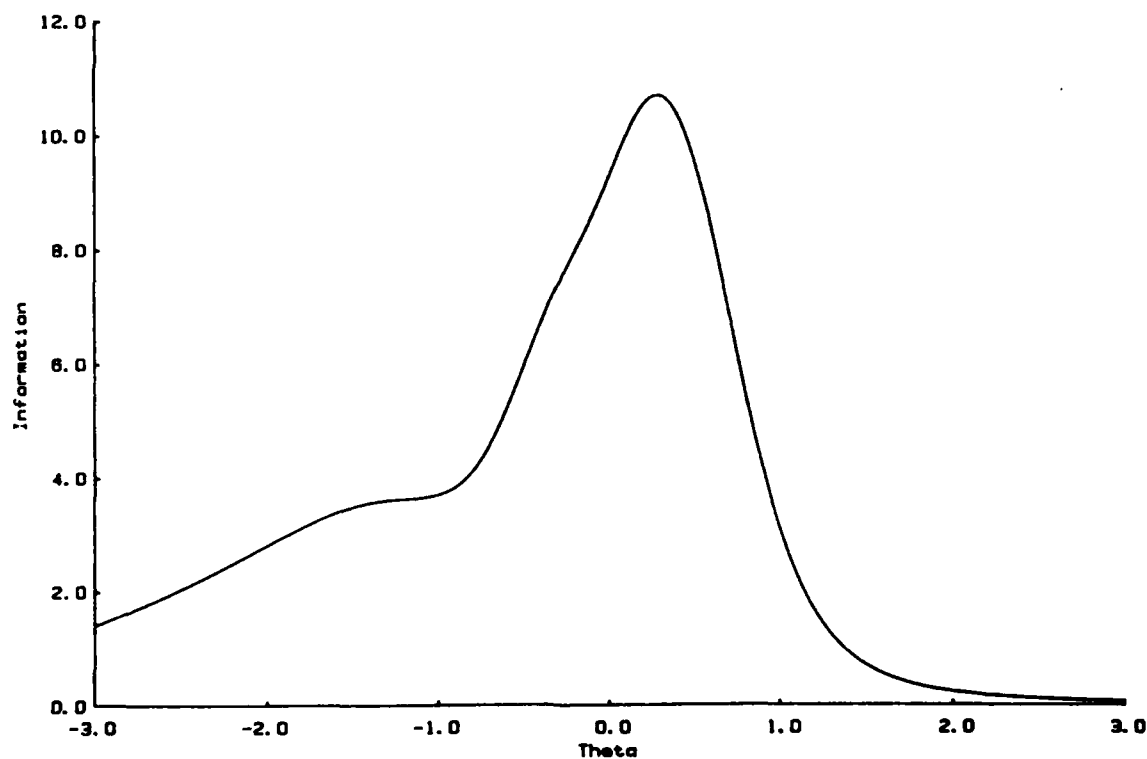


Figure A-78. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 11a (Male Sample).

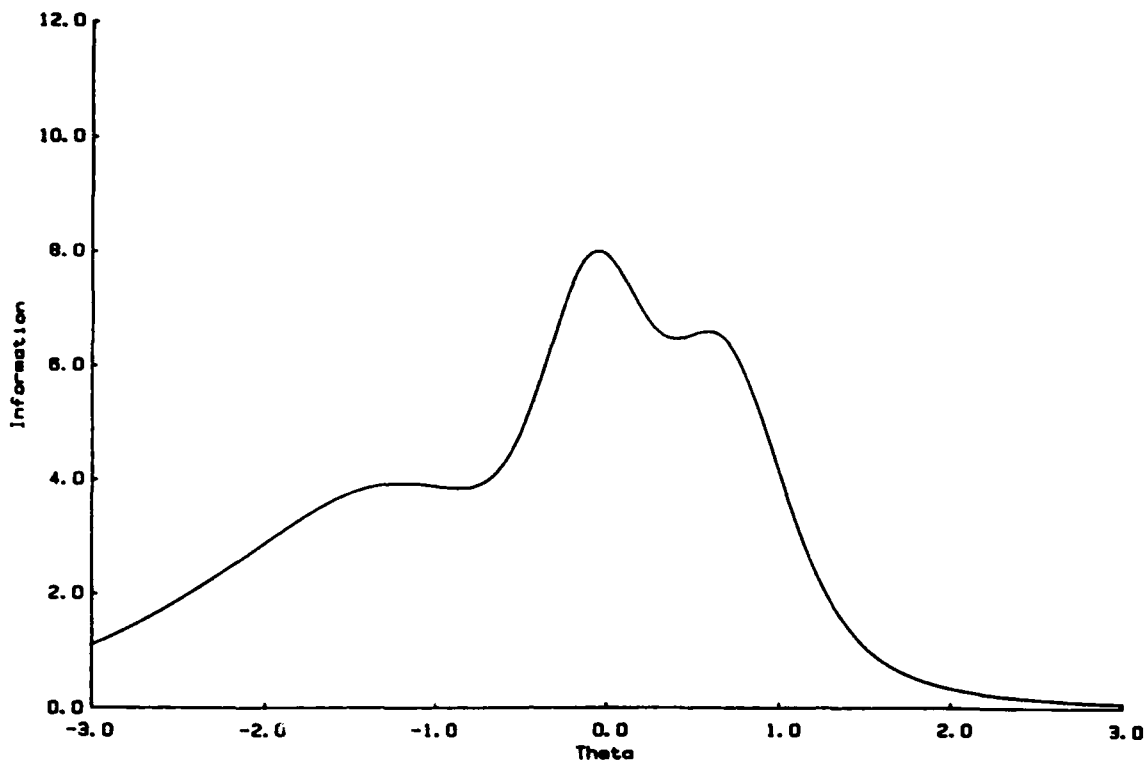


Figure A-79. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 11b (Male Sample).

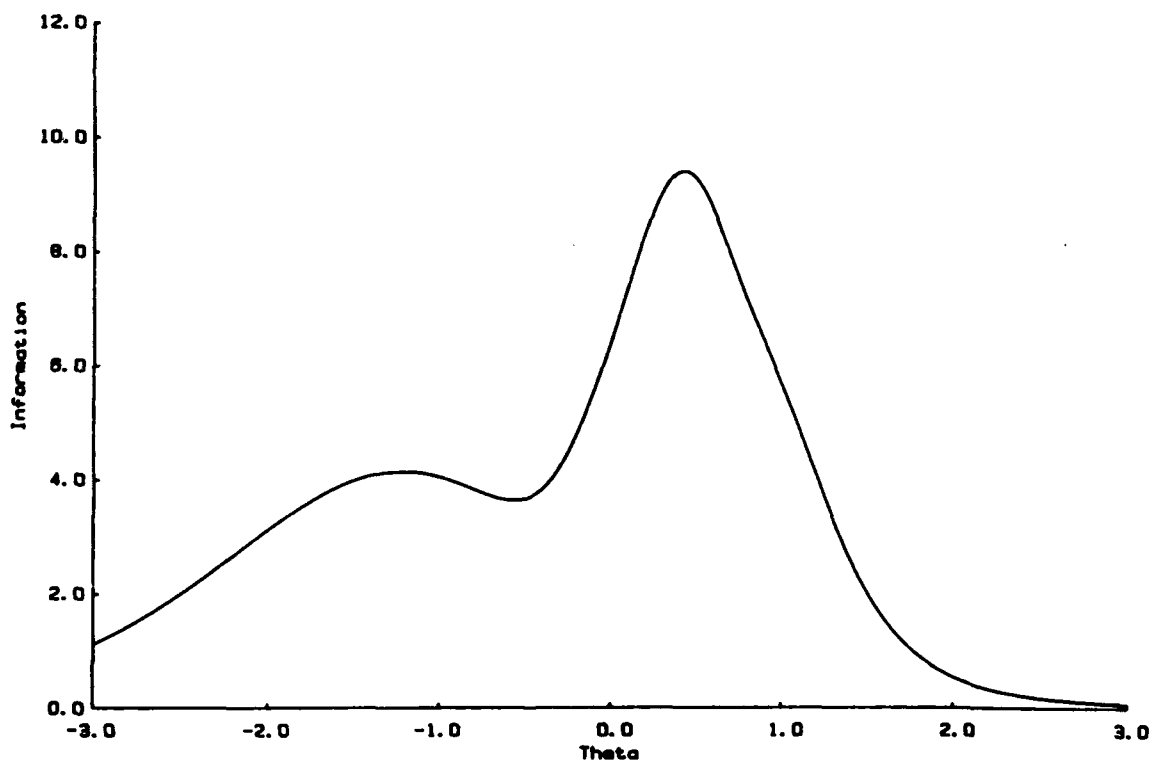


Figure A-80. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 12a (Male Sample).

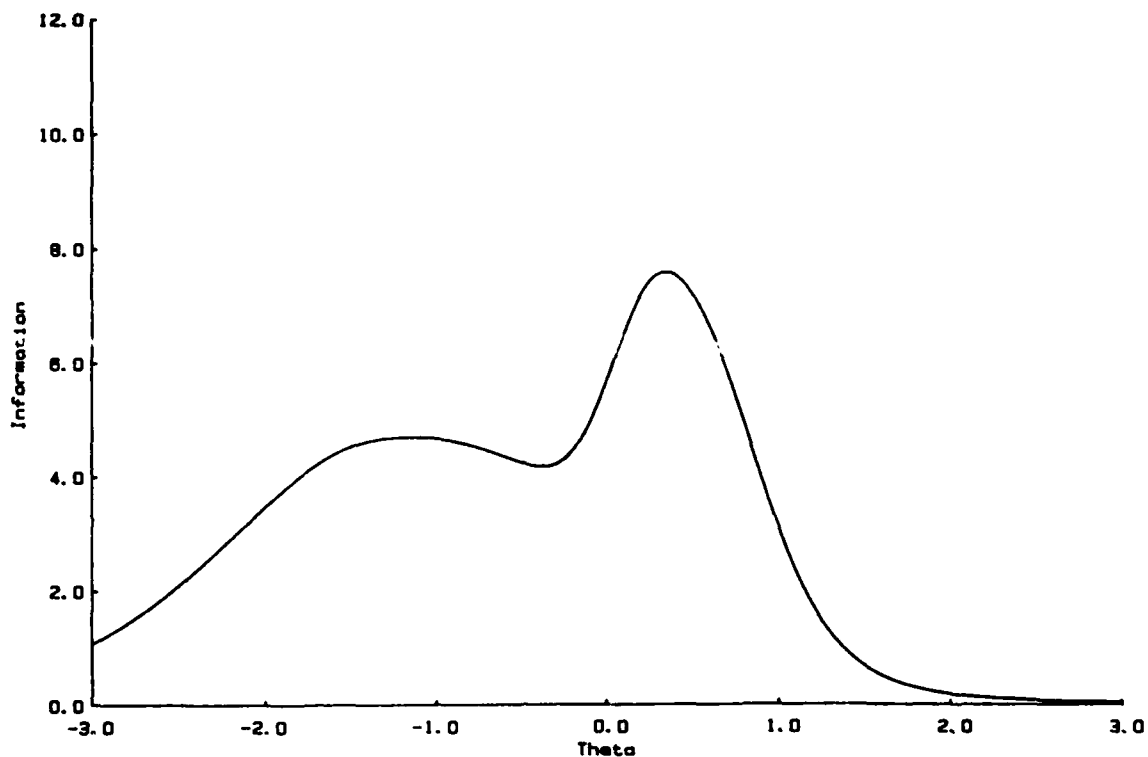


Figure A-81. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 12b (Male Sample).

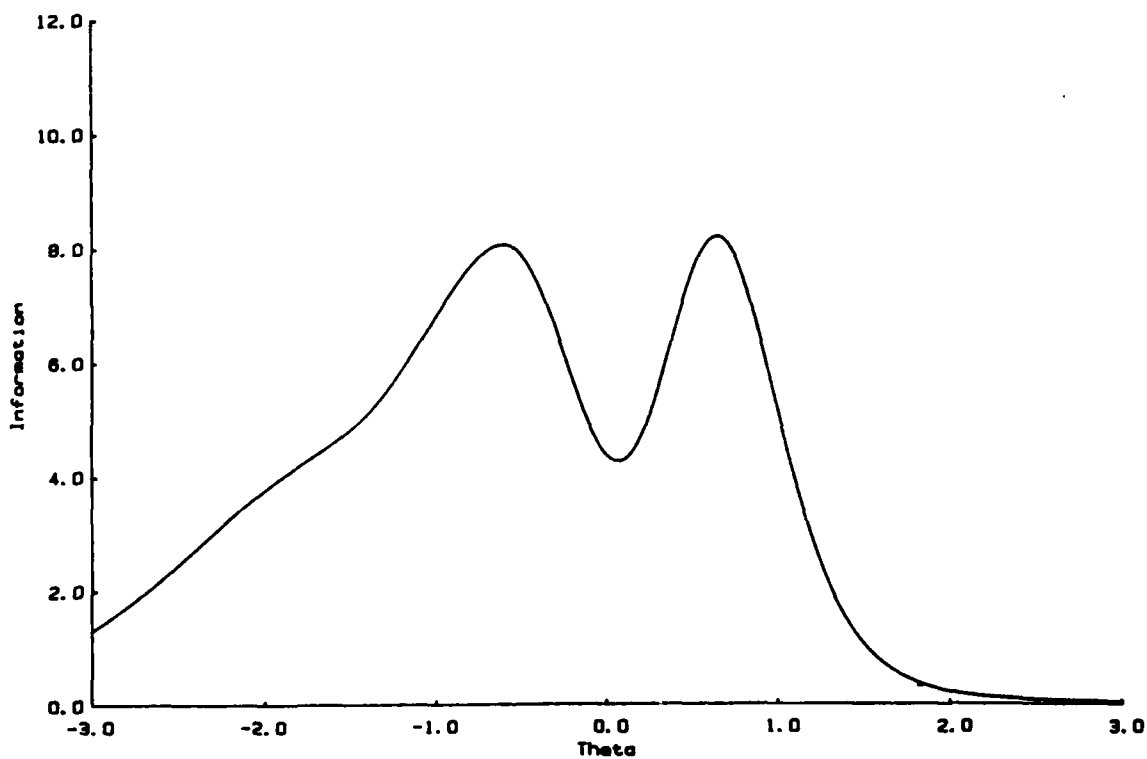


Figure A-82. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13a (Male Sample).

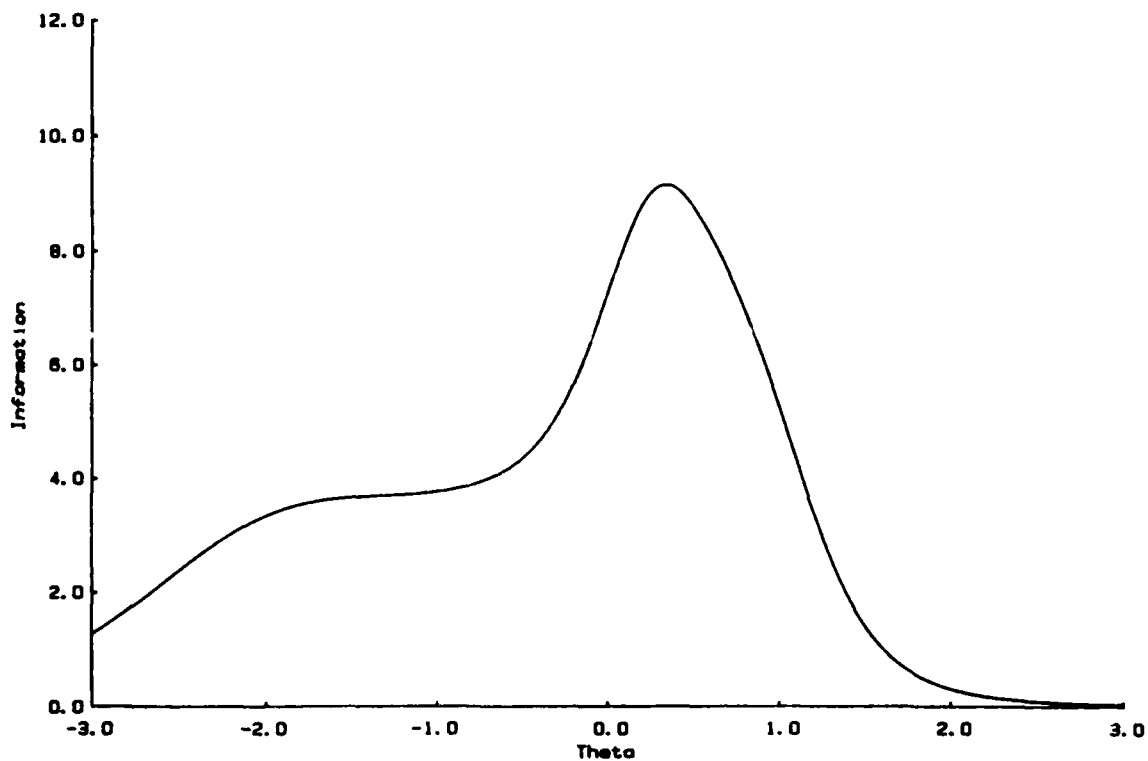


Figure A-83. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13b (Male Sample).

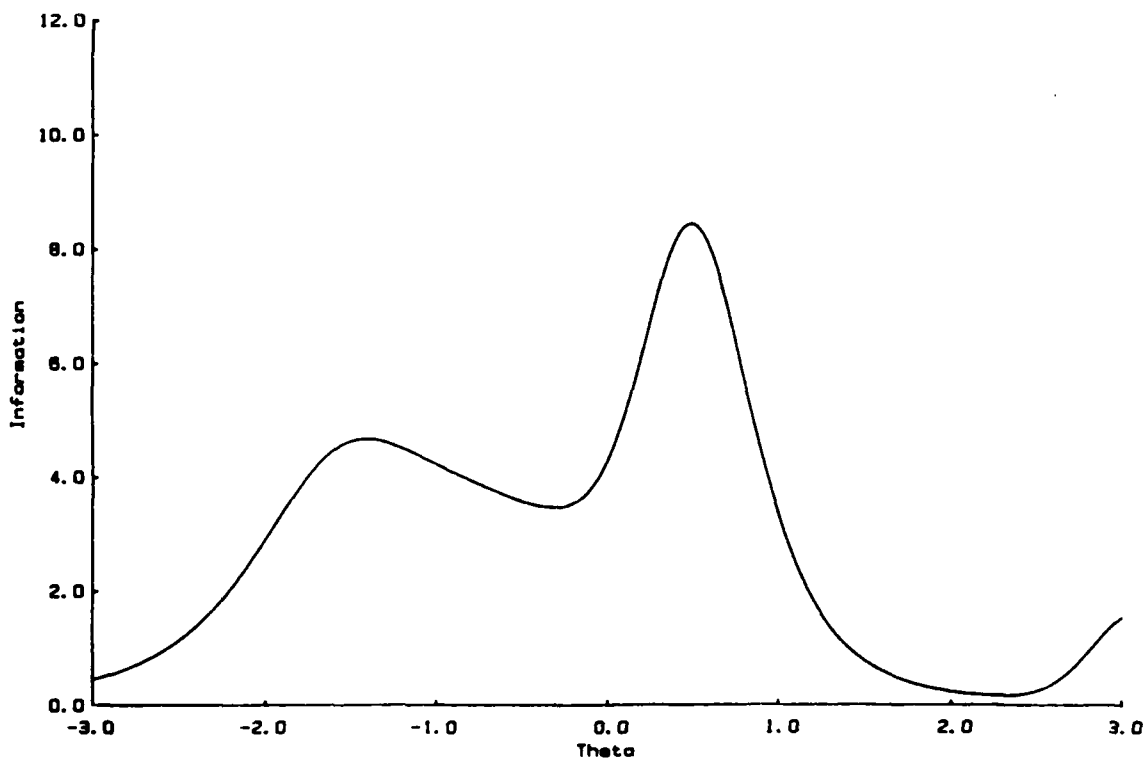


Figure A-84. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13c (Male Sample).



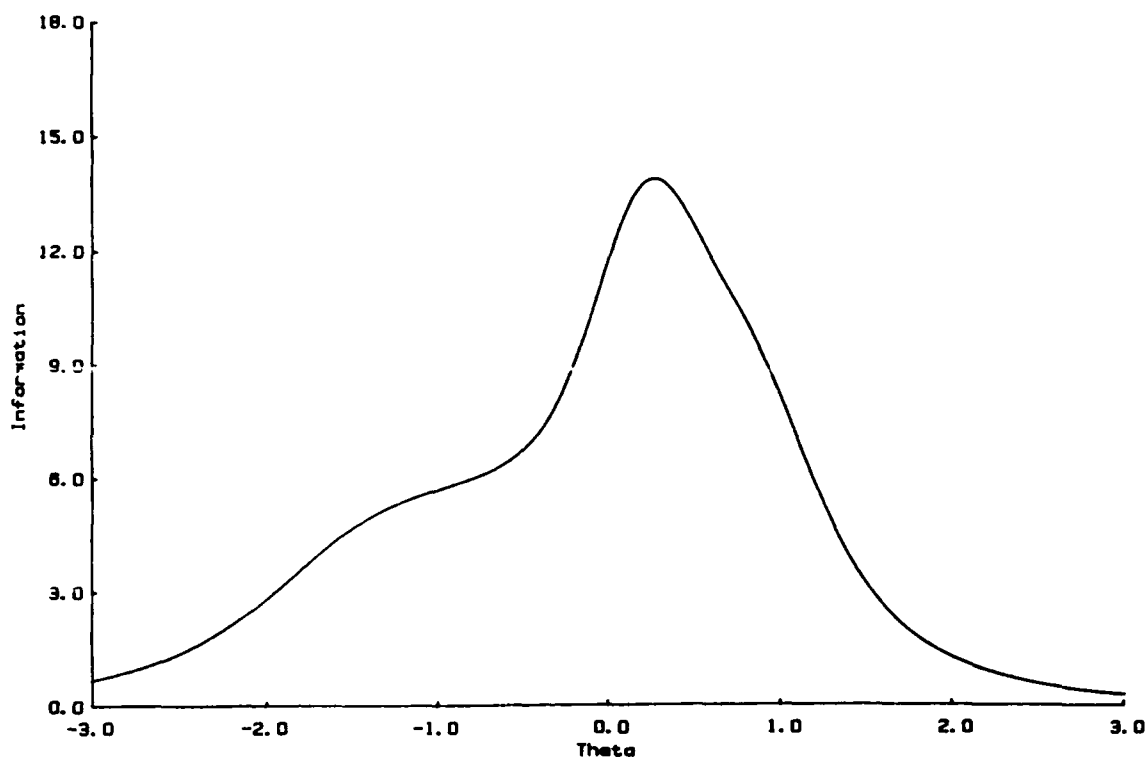


Figure A-85. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 11a (Male Sample).

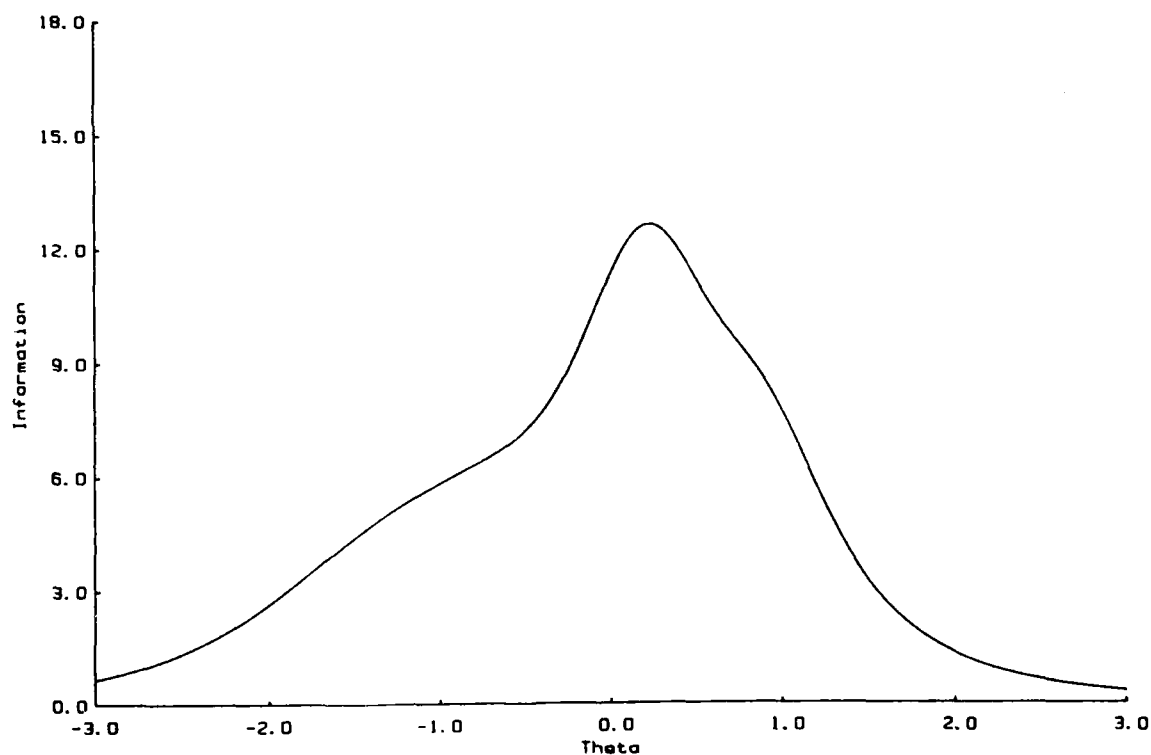


Figure A-86. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 11b (Male Sample).

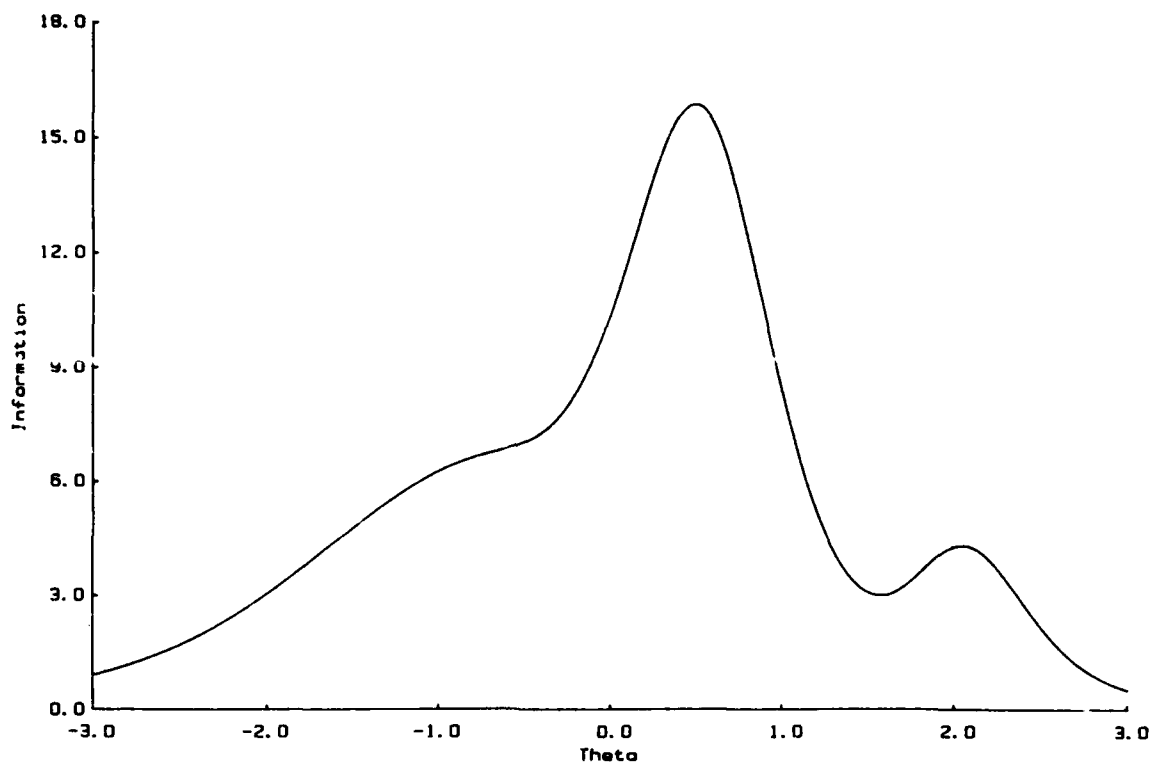


Figure A-87. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 12a (Male Sample).

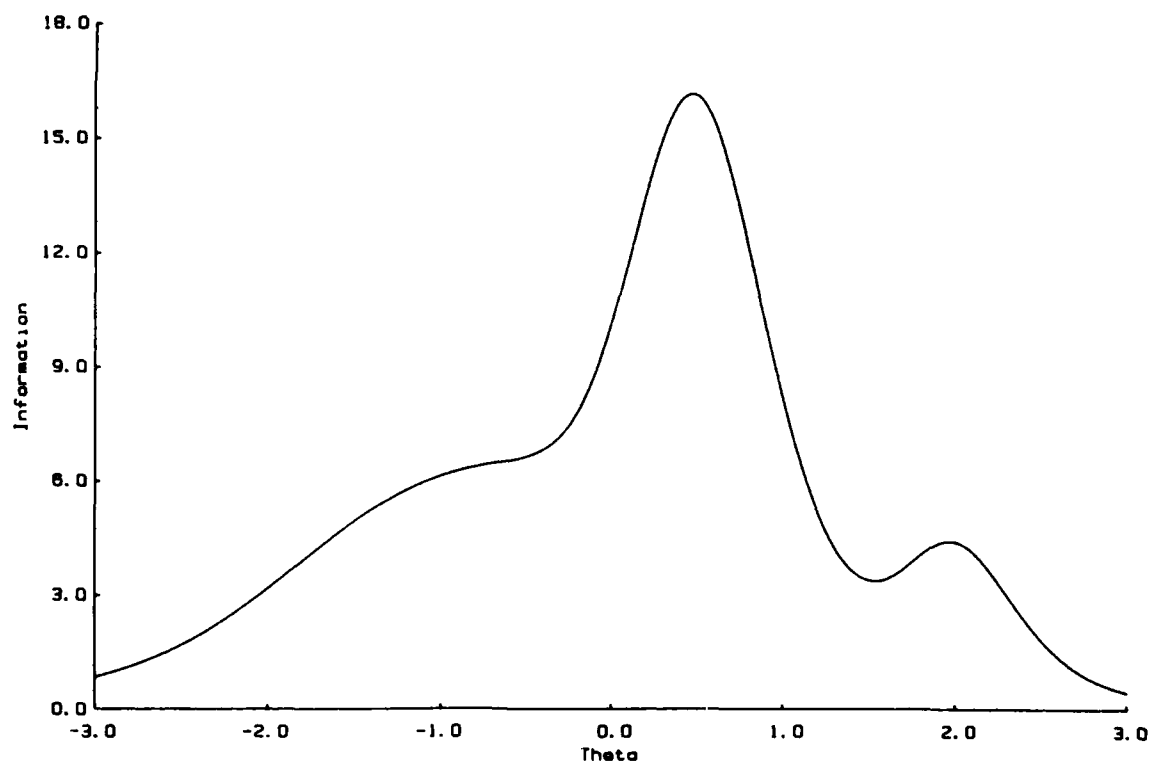


Figure A-88. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 12b (Male Sample).

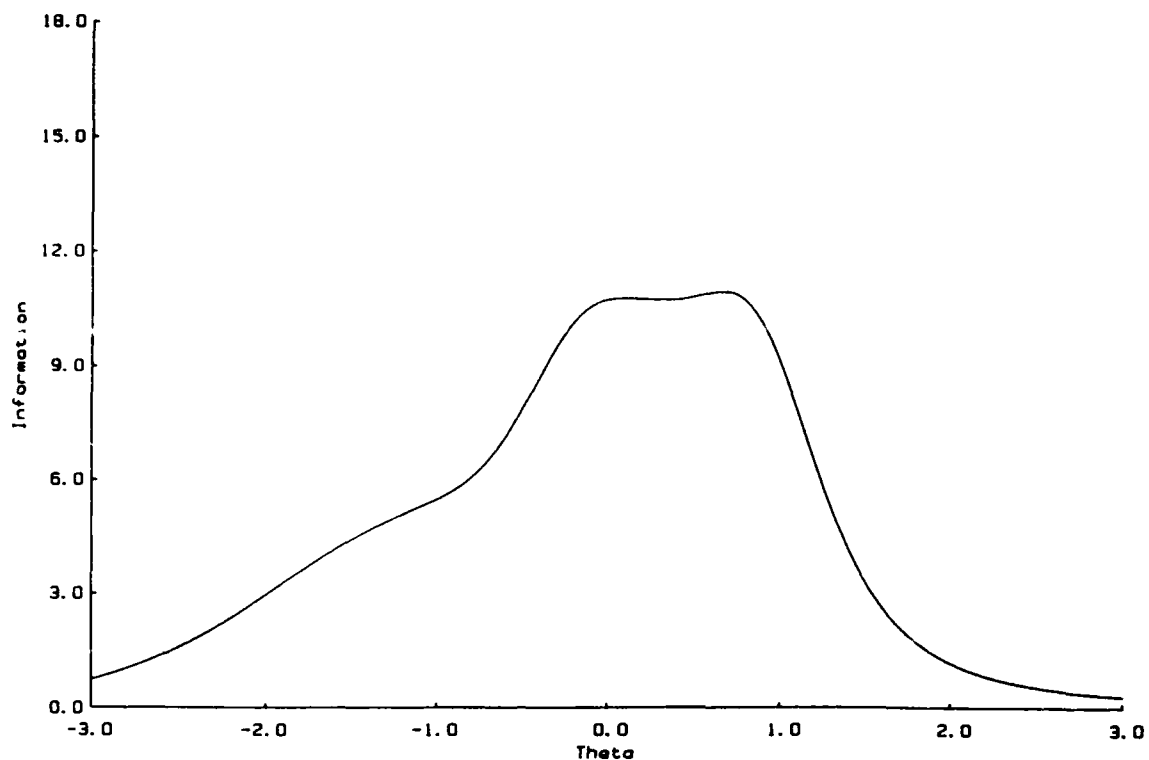


Figure A-89. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 13a (Male Sample).

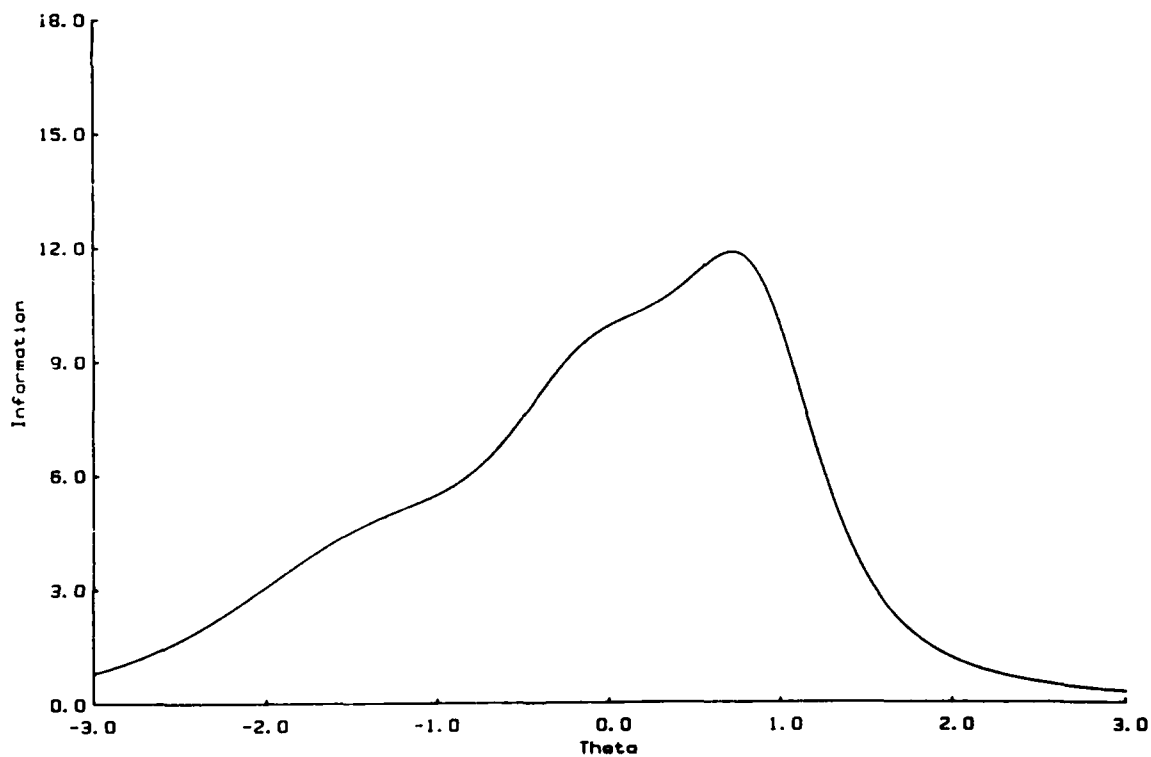


Figure A-90. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 13b (Male Sample).

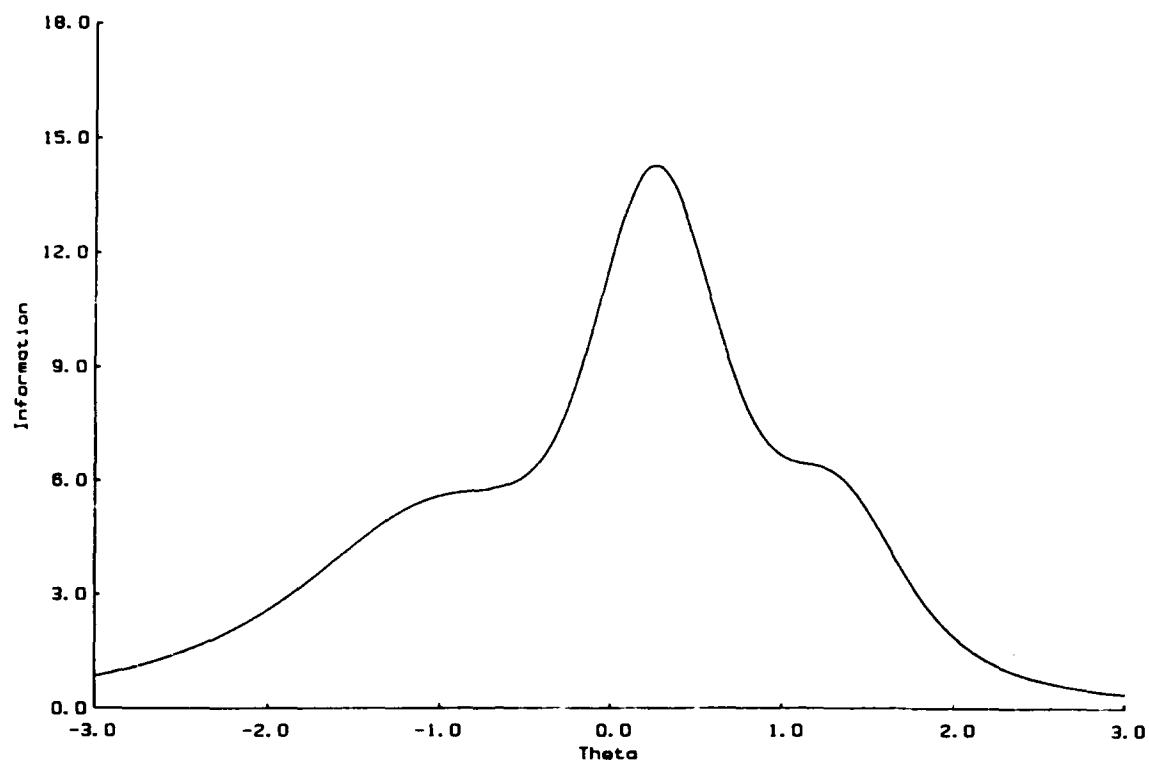


Figure A-91. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 13c (Male Sample).

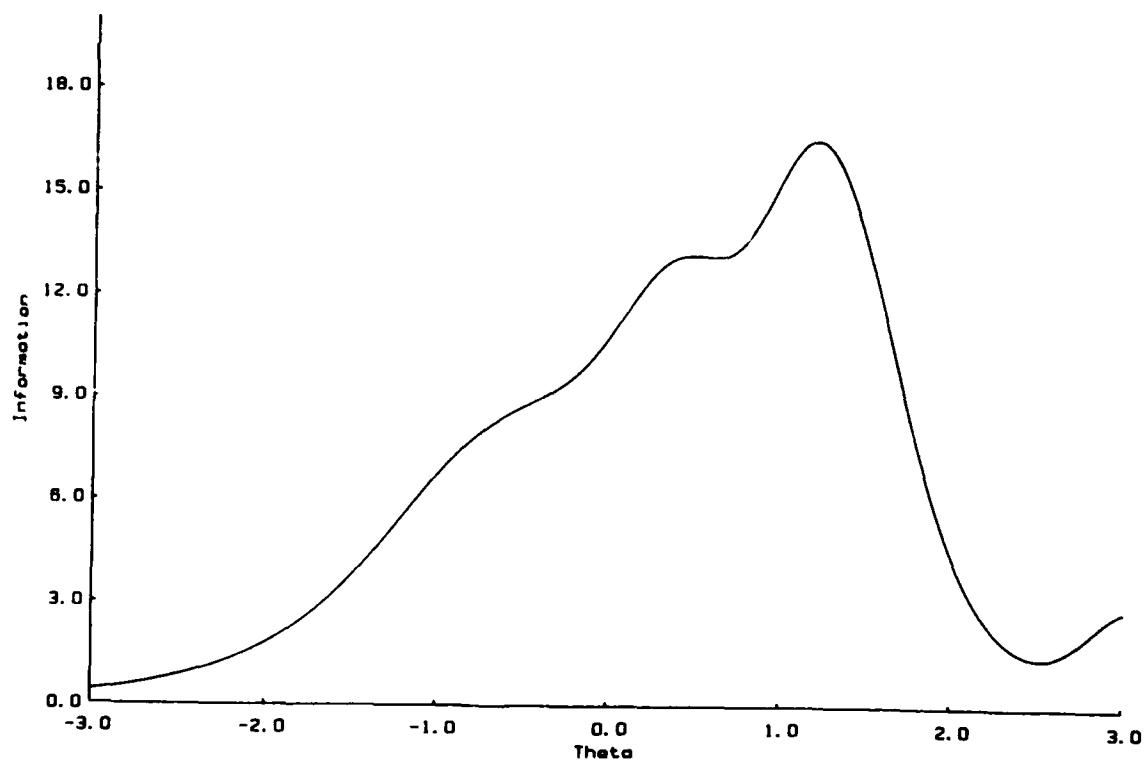


Figure A-92. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 11a (Male Sample).

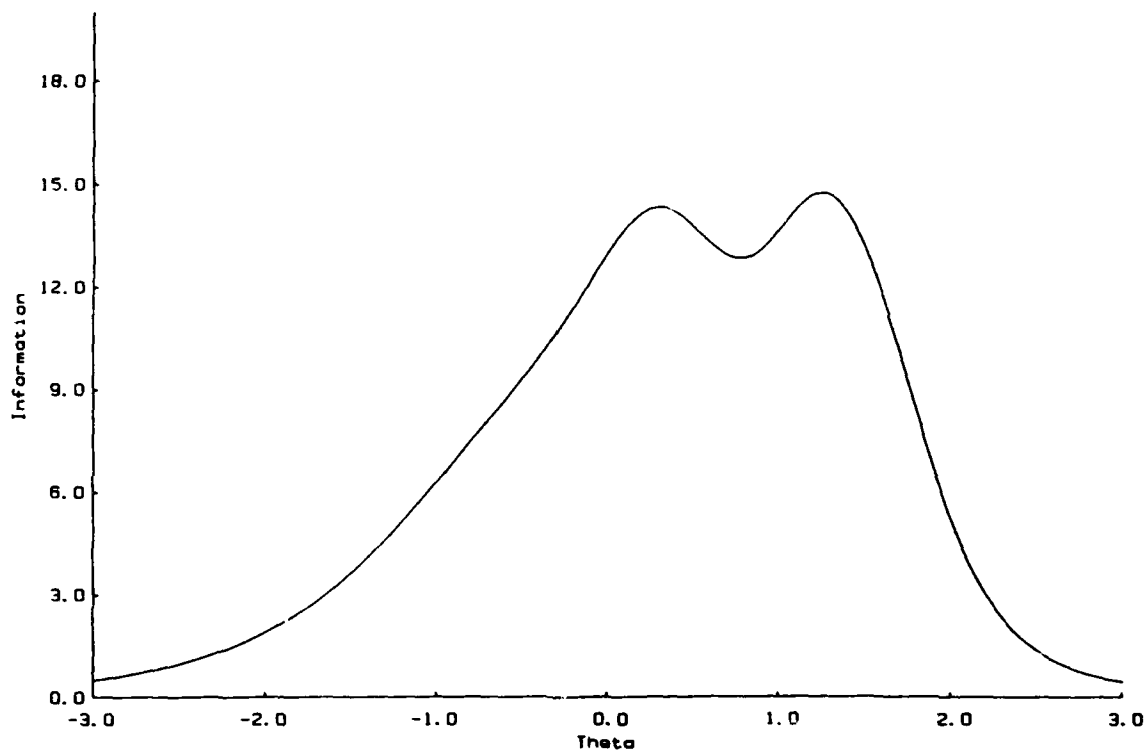


Figure A-93. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 11b (Male Sample).

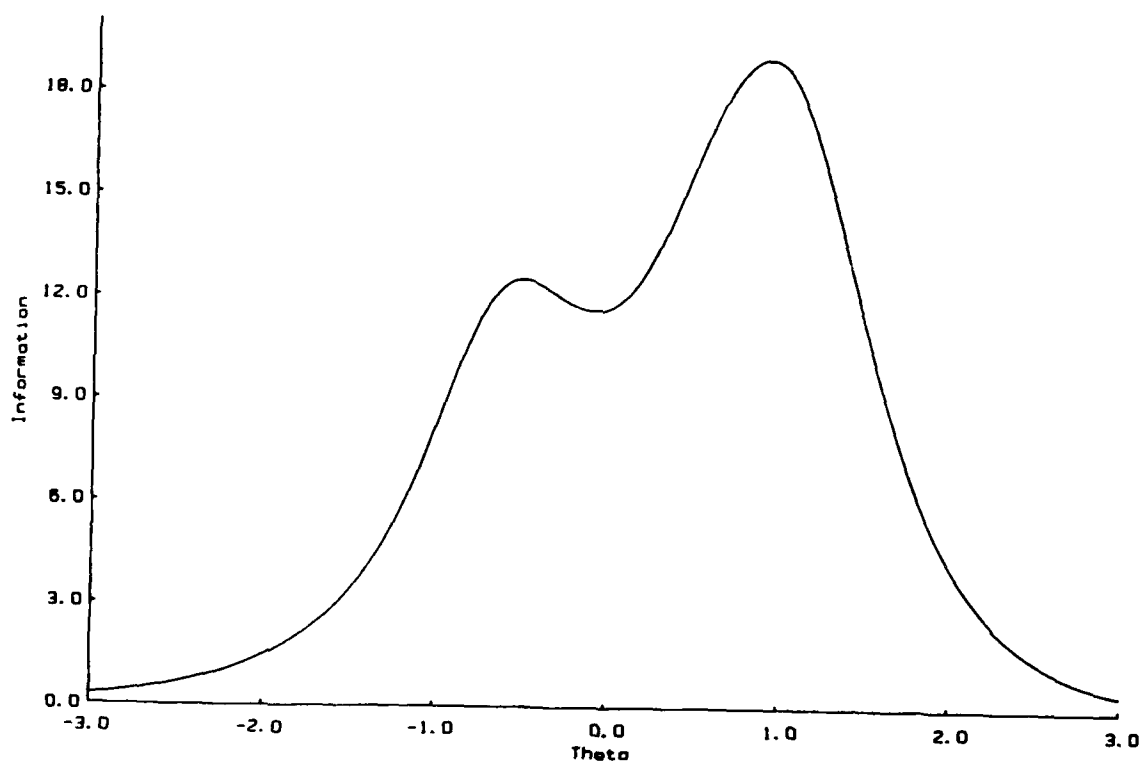


Figure A-94. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 12a (Male Sample).

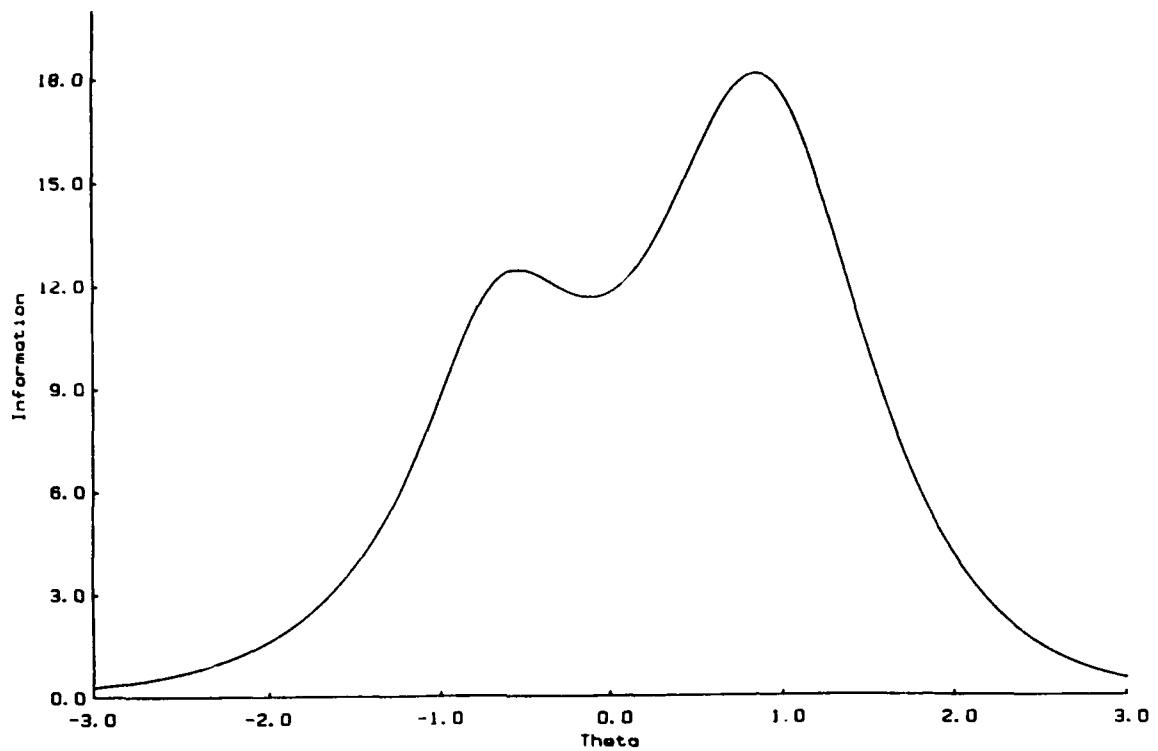


Figure A-95. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 12b (Male Sample).

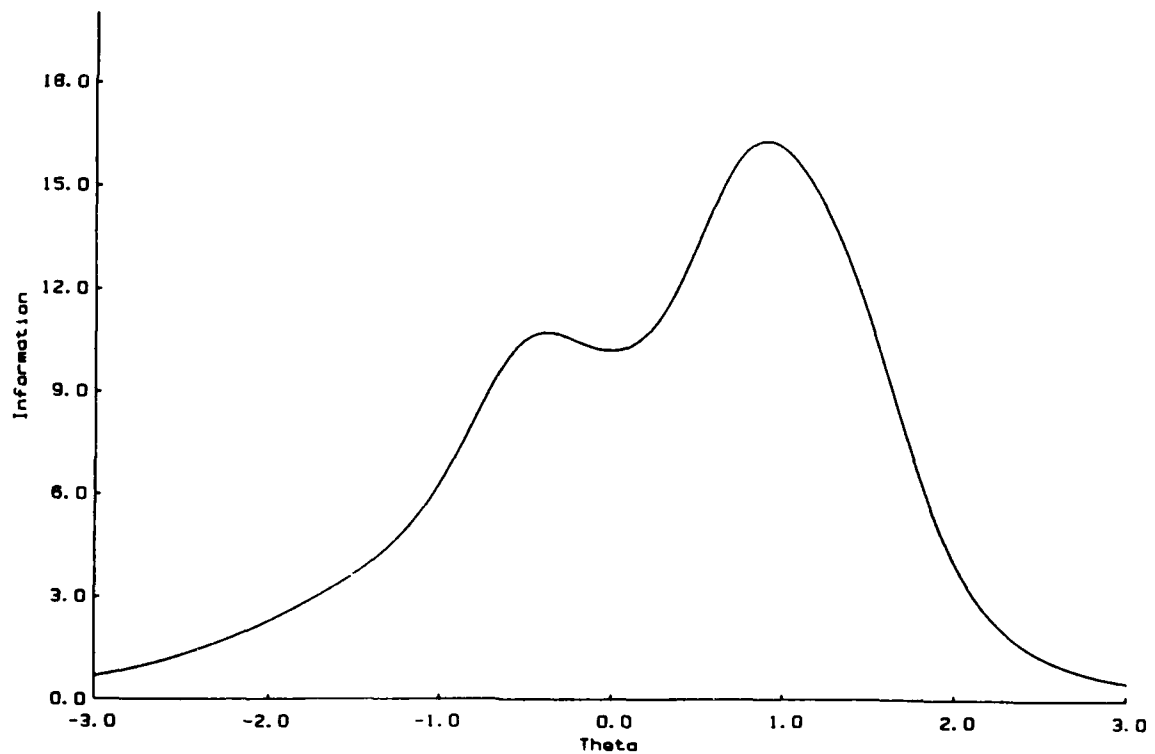


Figure A-96. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 13a (Male Sample).

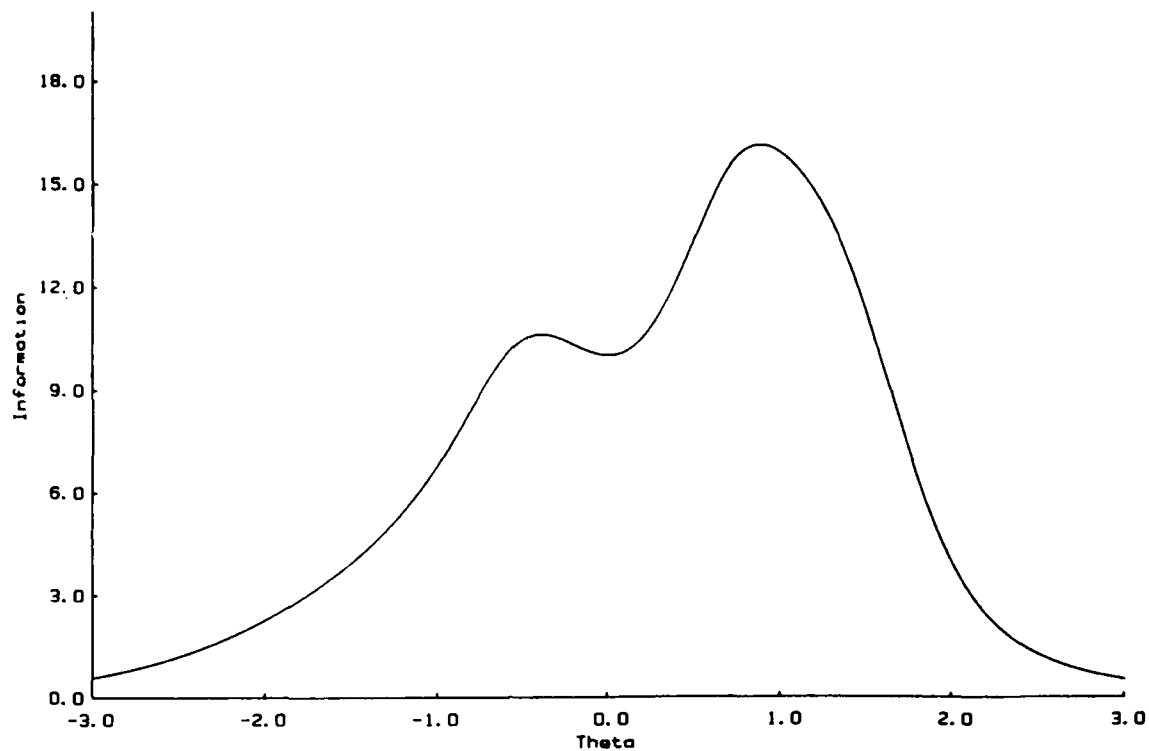


Figure A-97. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 13b (Male Sample).

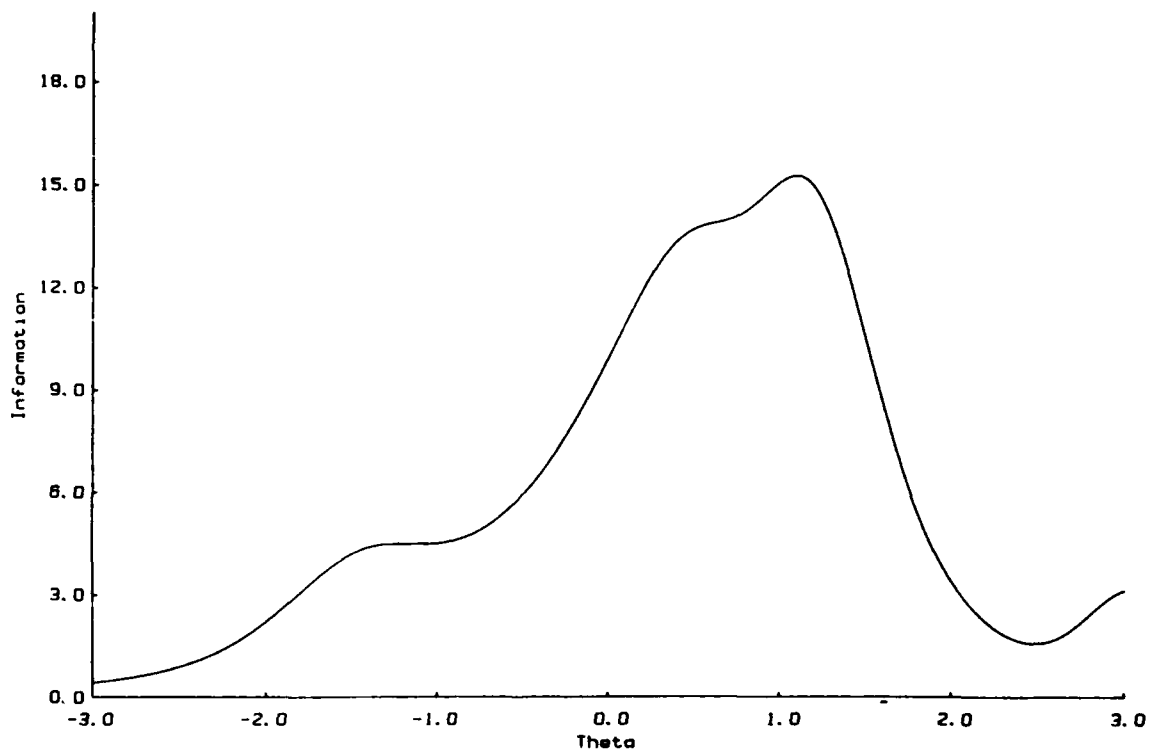


Figure A-98. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 13c (Male Sample).

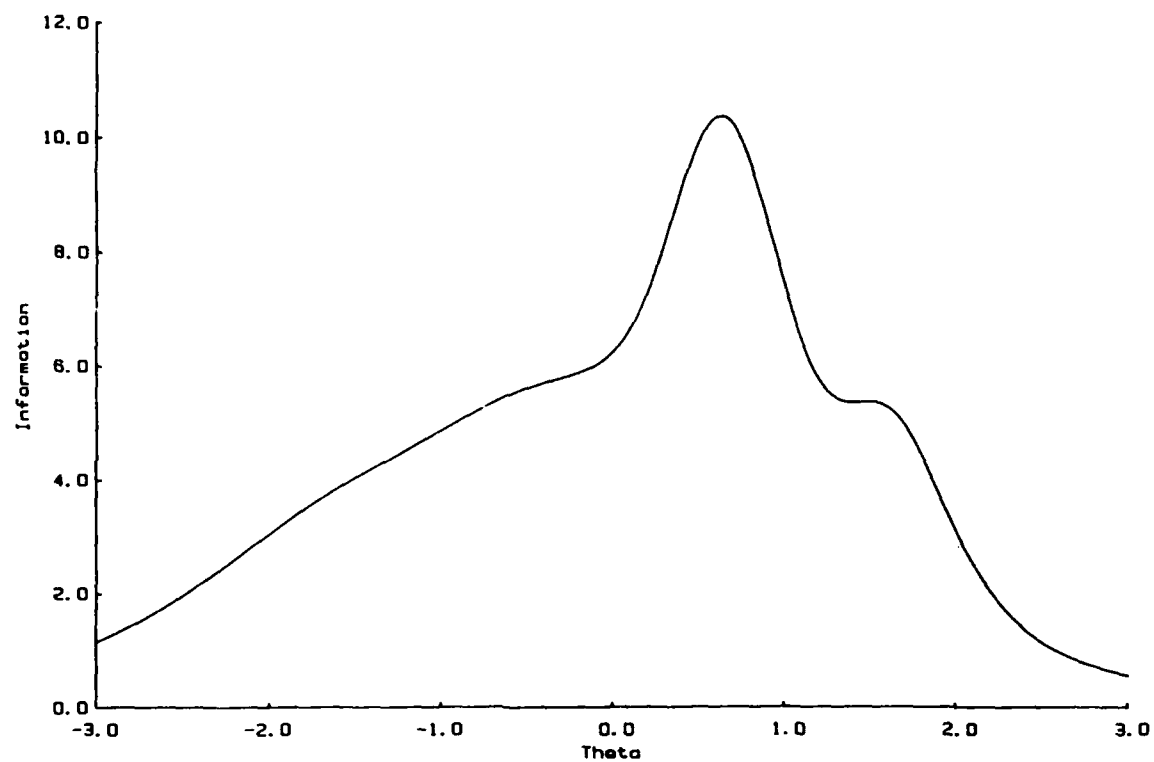


Figure A-99. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 11a (Male Sample).

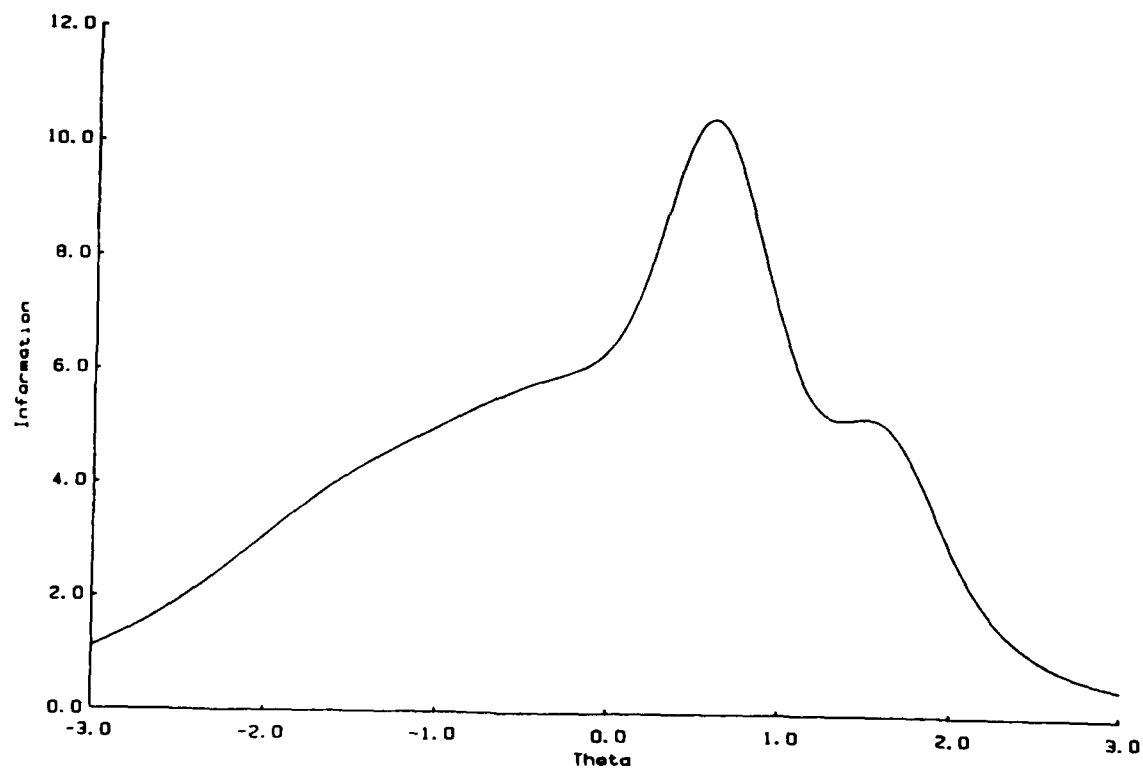


Figure A-100. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 11b (Male Sample).



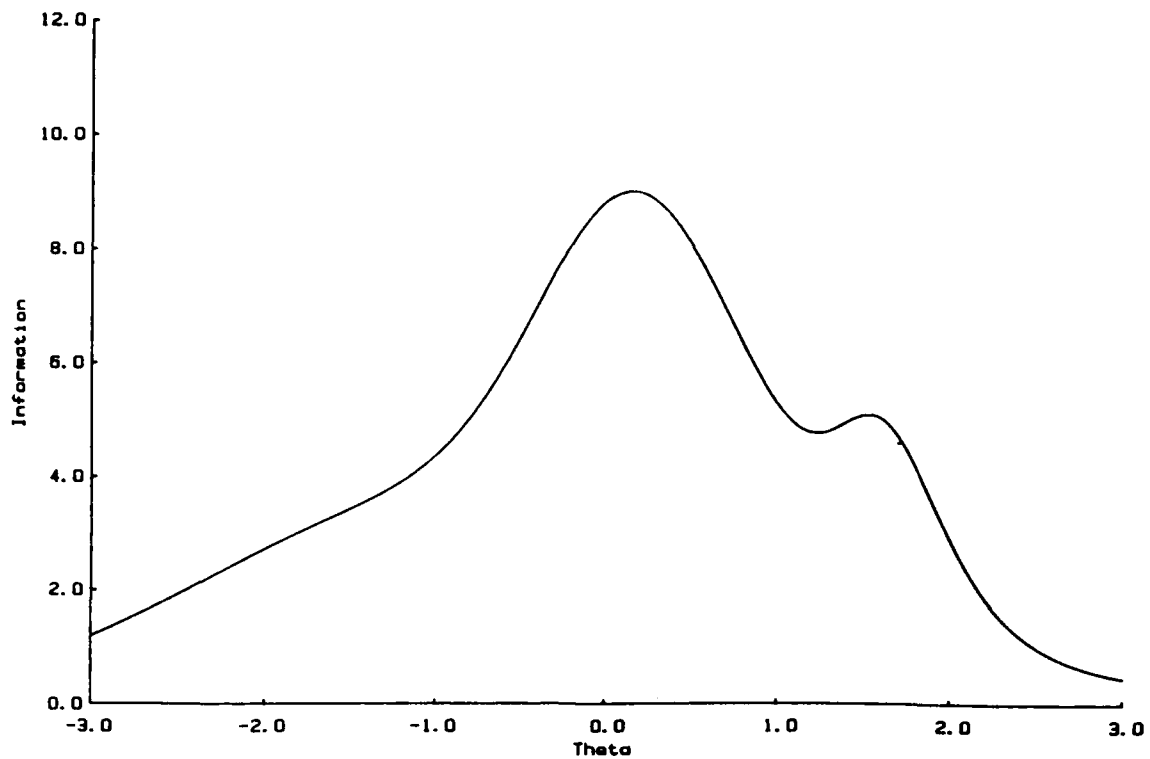


Figure A-101. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 12a (Male Sample).

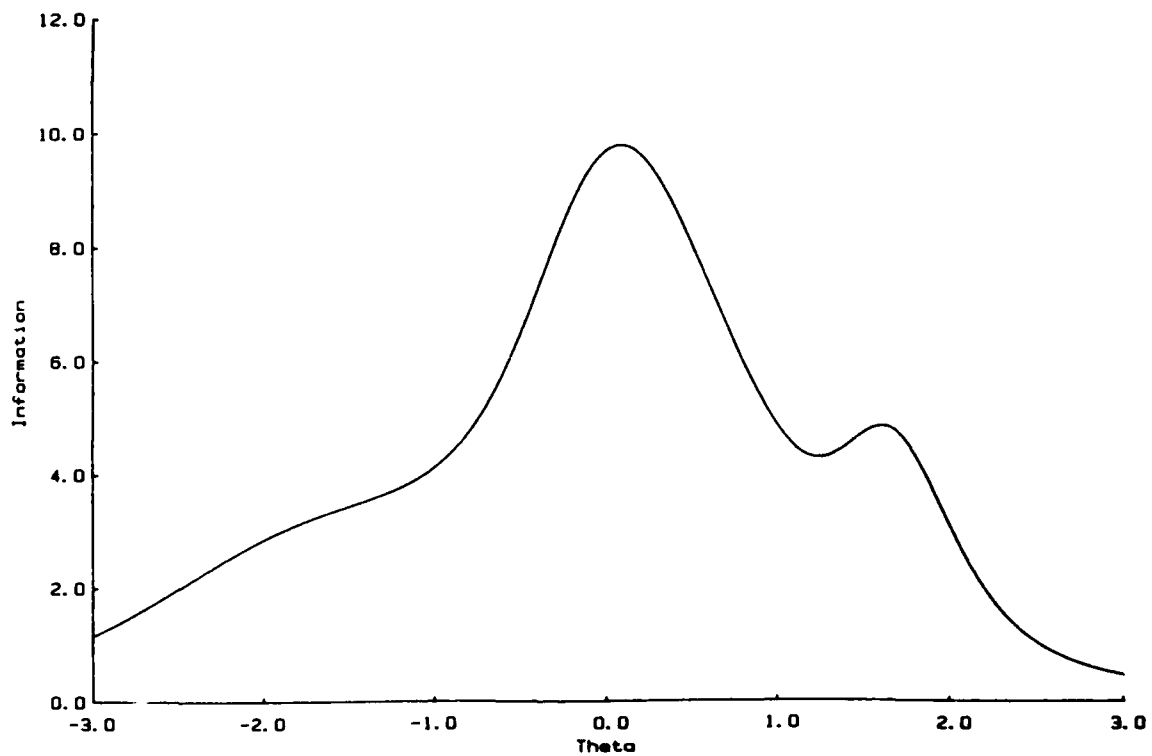


Figure A-102. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 12b (Male Sample).

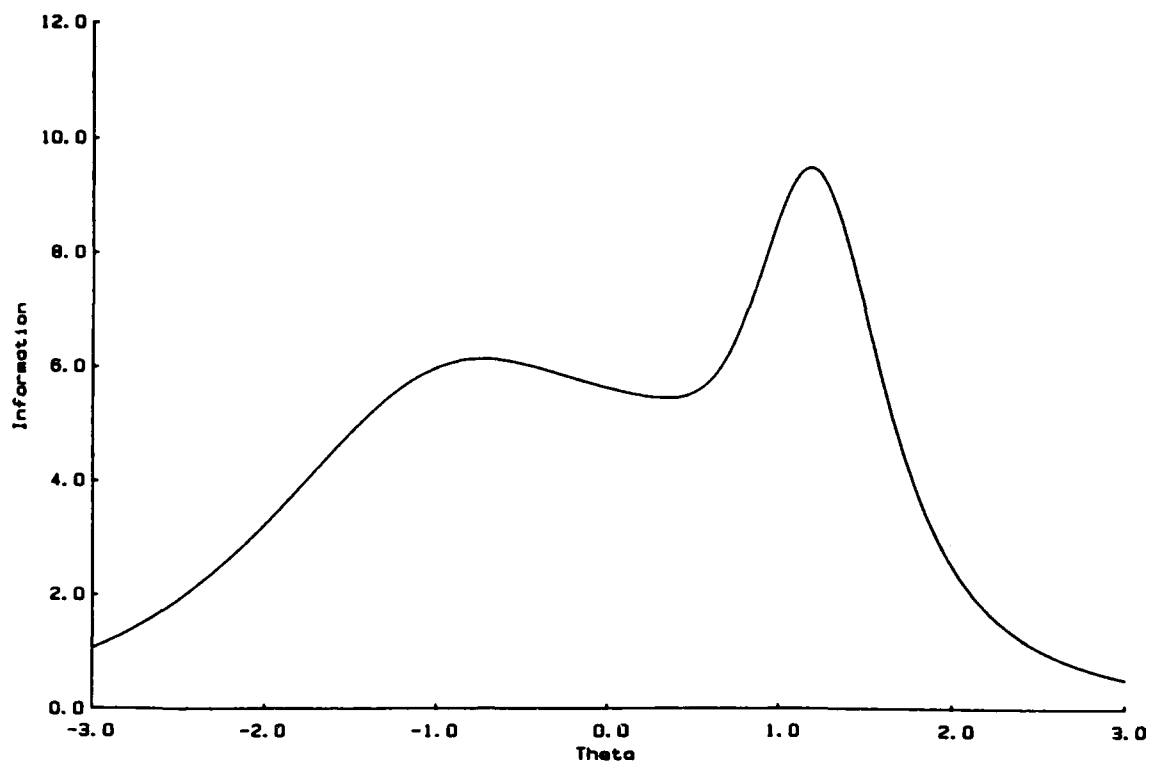


Figure A-103. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 13a (Male Sample).

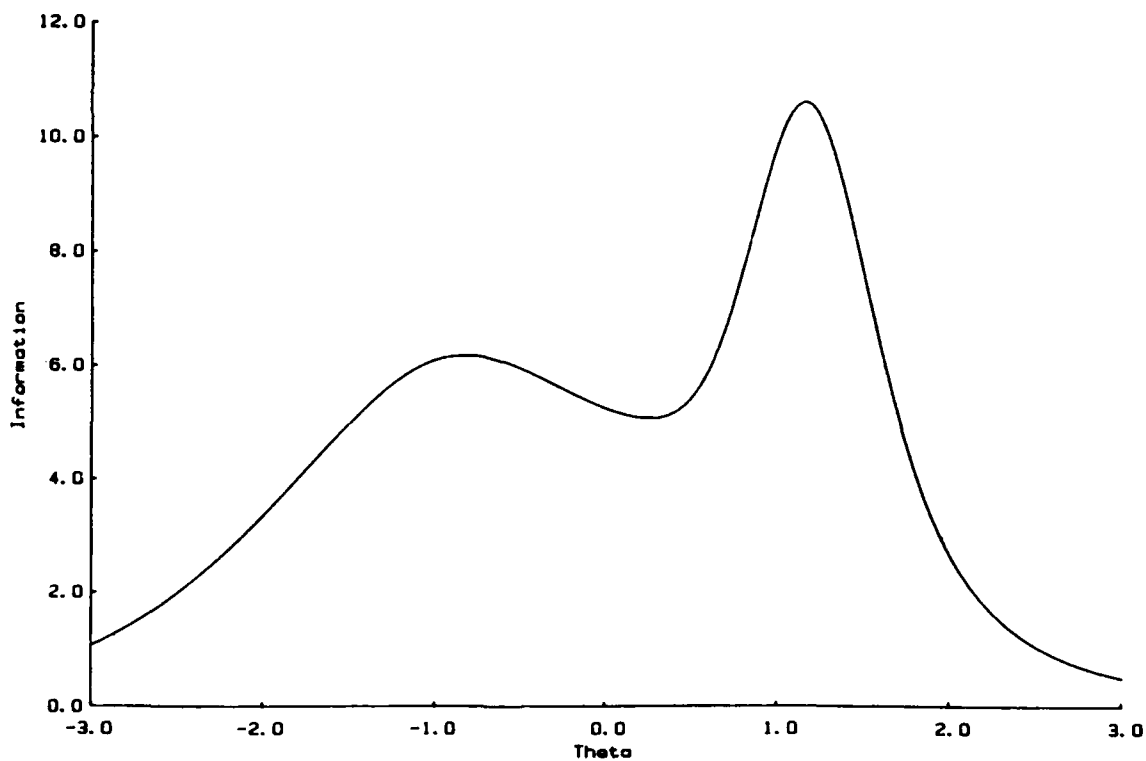


Figure A-104. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 13b (Male Sample).

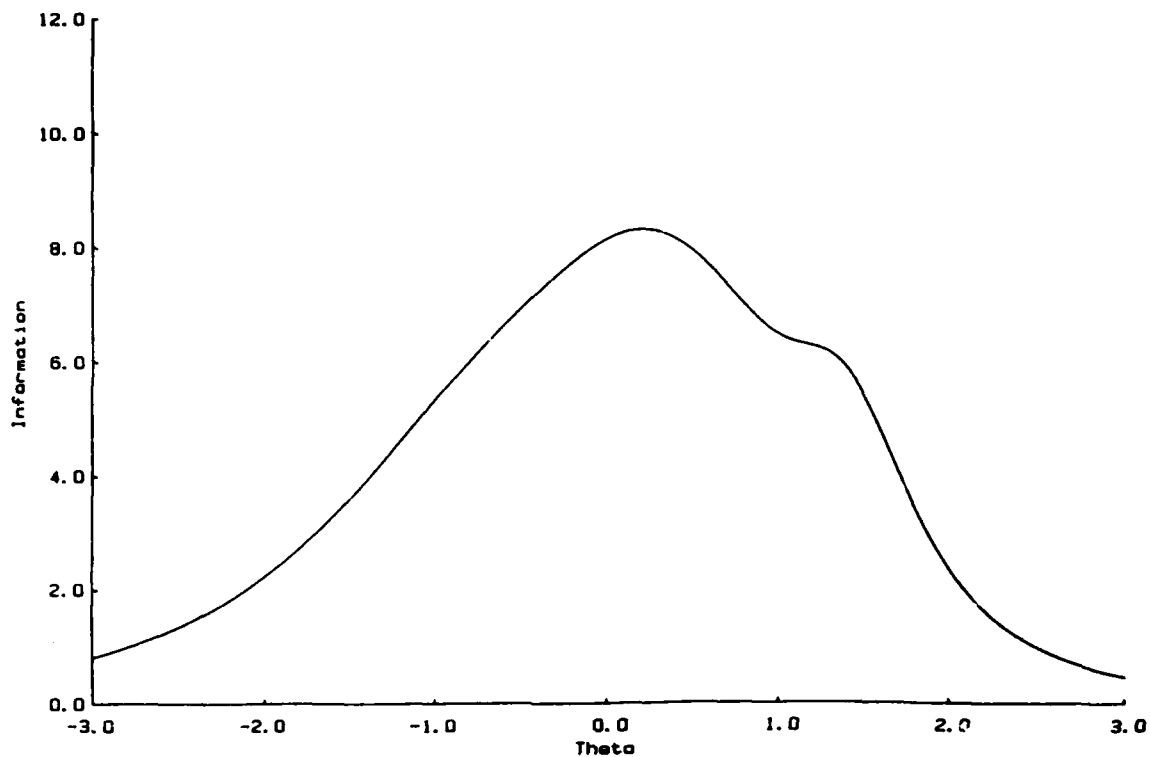


Figure A-105. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 13c (Male Sample).

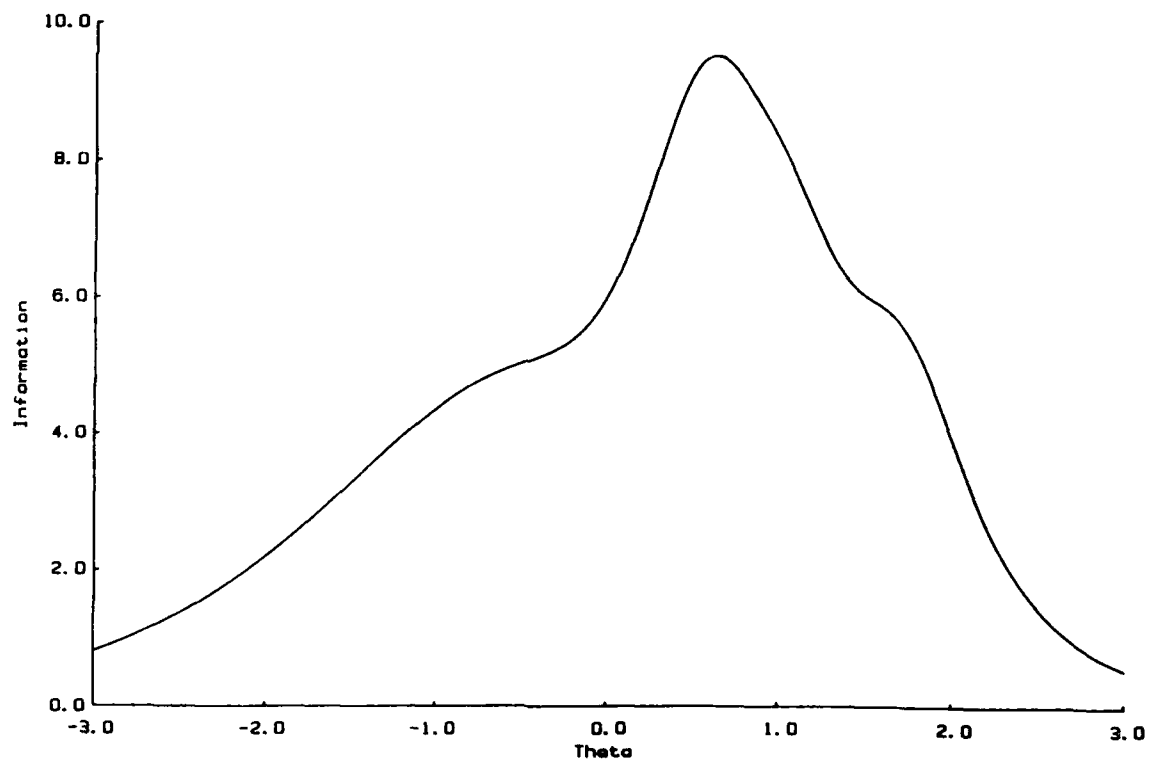


Figure A-106. Test Information Curve for Electronics Information Subtest on ASVAB Form 11a (Male Sample).

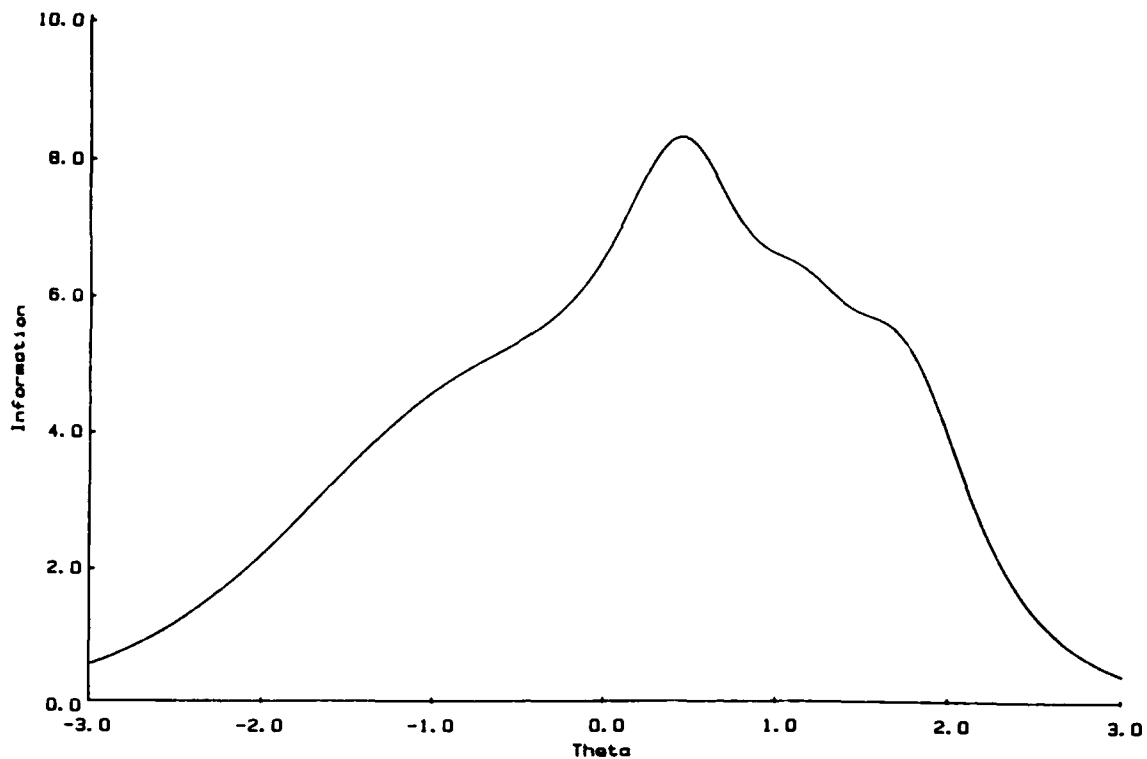


Figure A-107. Test Information Curve for Electronics Information Subtest on ASVAB Form 11b (Male Sample).

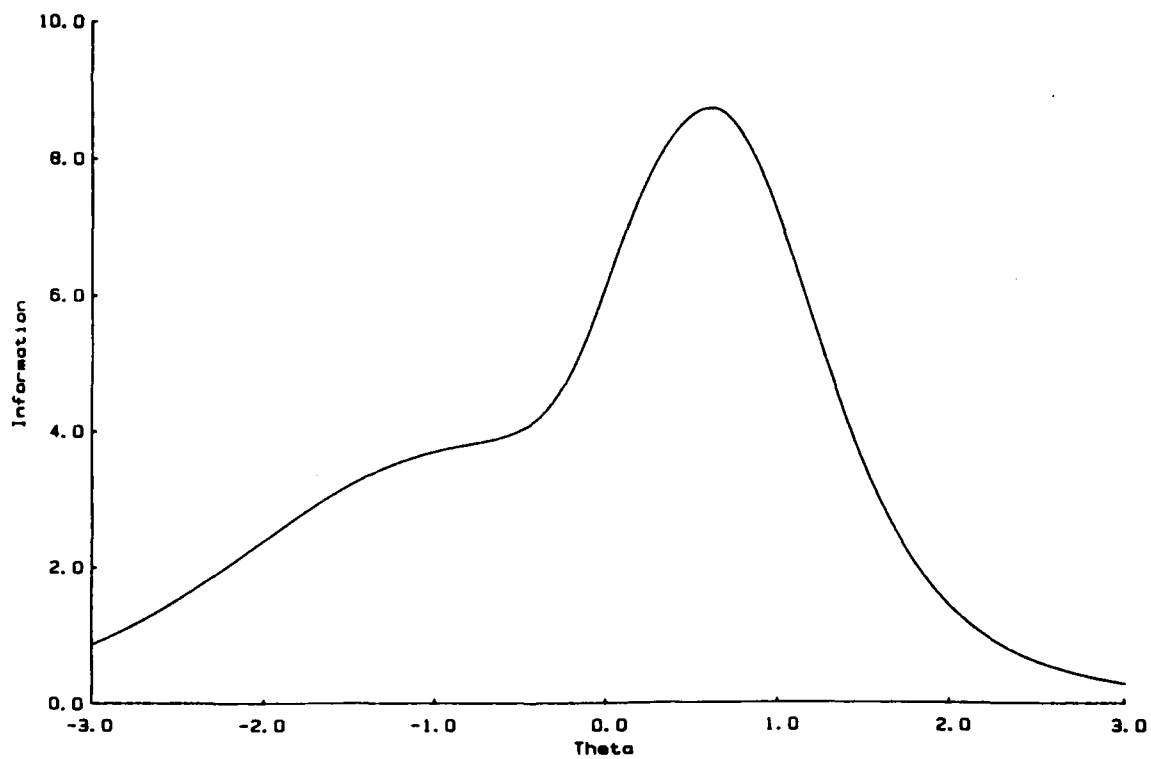


Figure A-108. Test Information Curve for Electronics Information Subtest on ASVAB Form 12a (Male Sample).

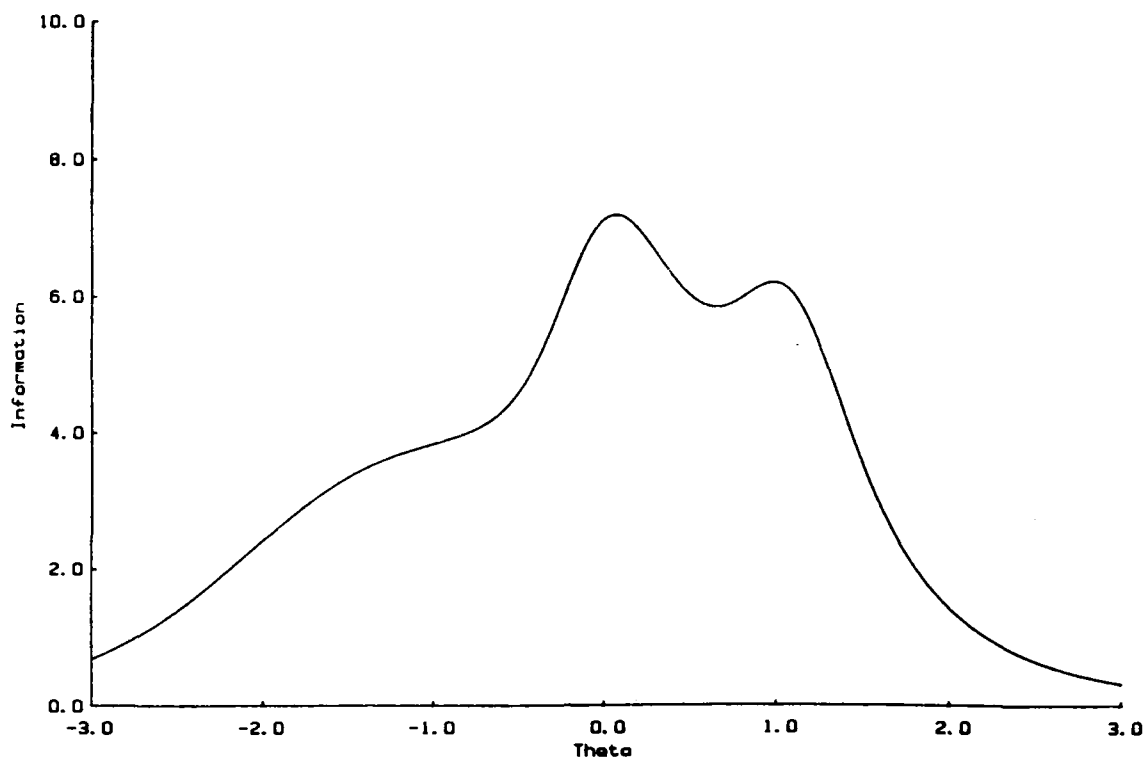


Figure A-109. Test Information Curve for Electronics Information Subtest on ASVAB Form 12b (Male Sample).

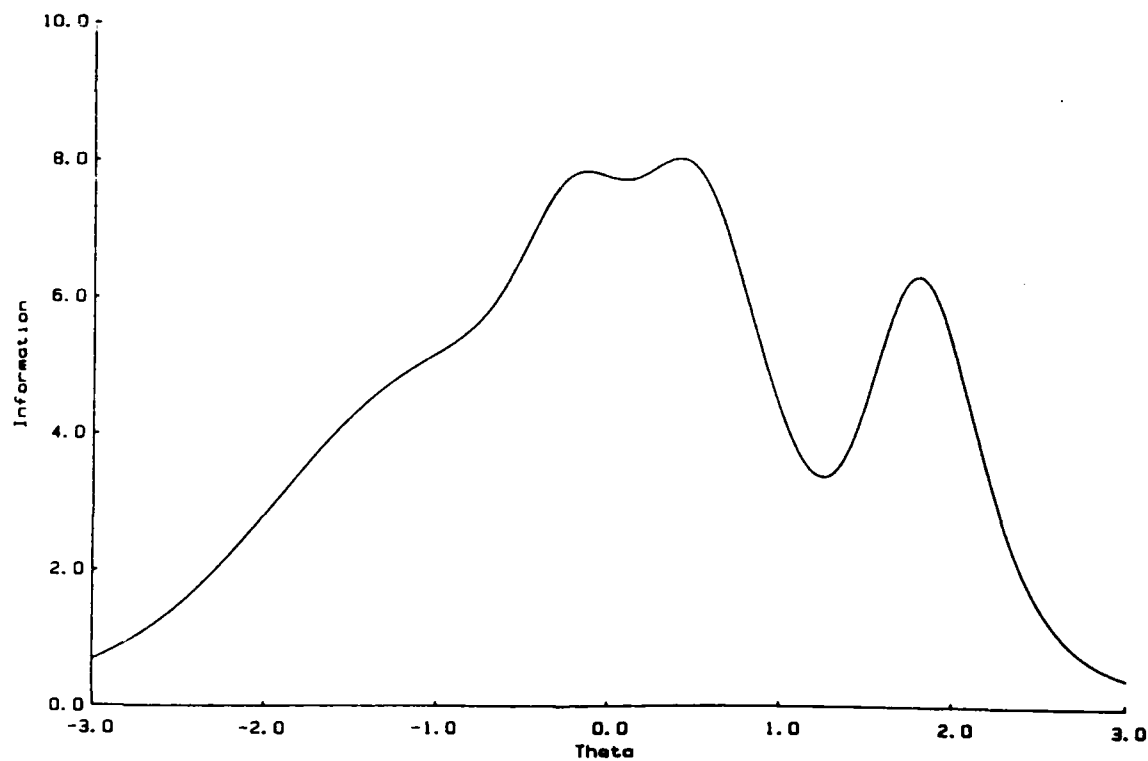


Figure A-110. Test Information Curve for Electronics Information Subtest on ASVAB Form 13a (Male Sample).

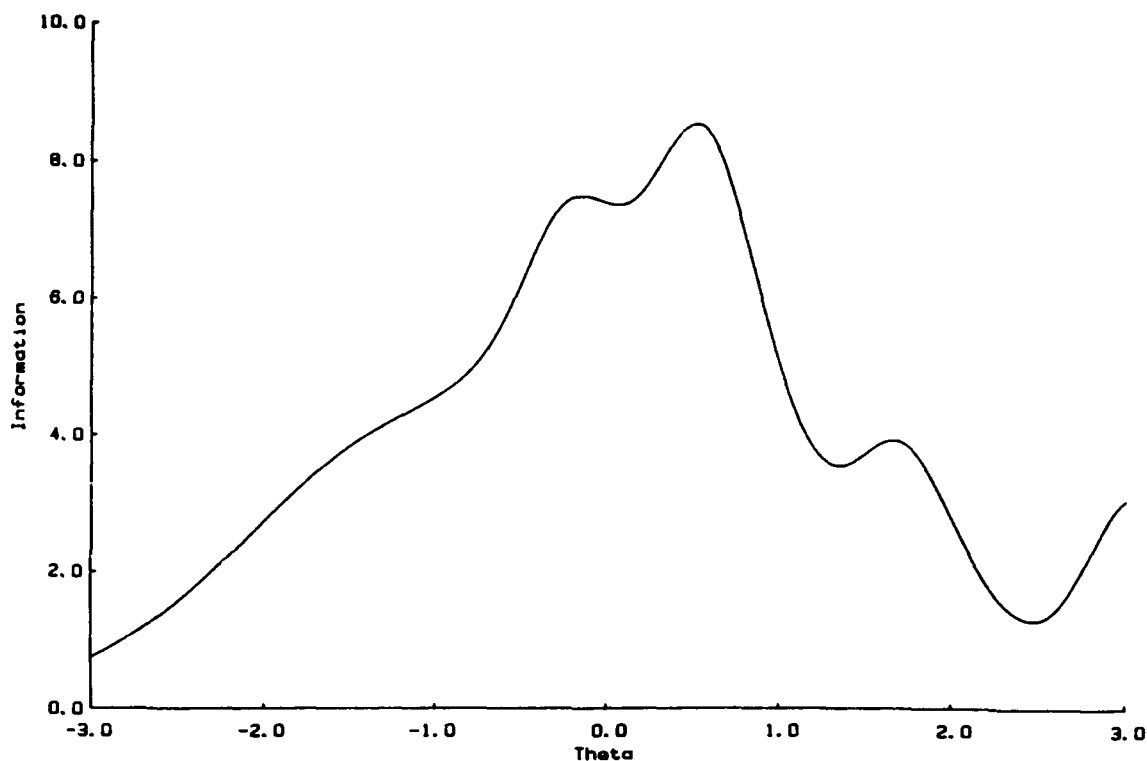


Figure A-111. Test Information Curve for Electronics Information Subtest on ASVAB Form 13b (Male Sample).

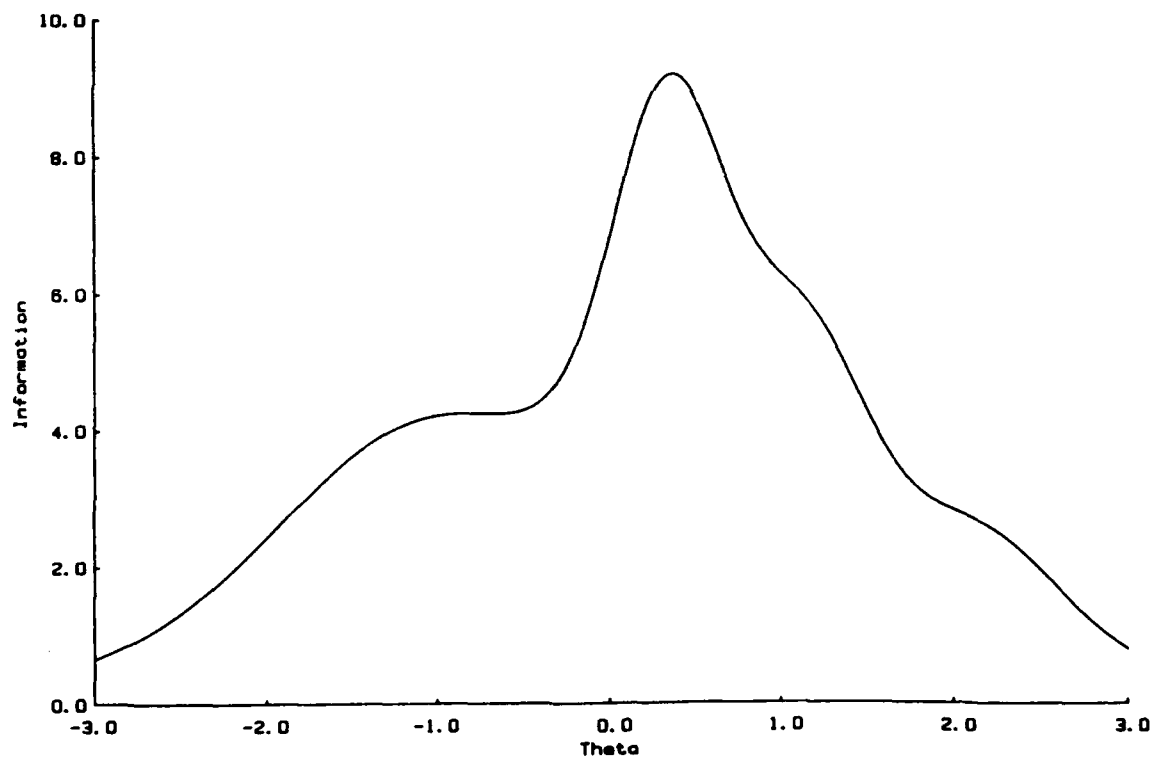


Figure A-112. Test Information Curve for Electronics Information Subtest on ASVAB Form 13c (Male Sample).

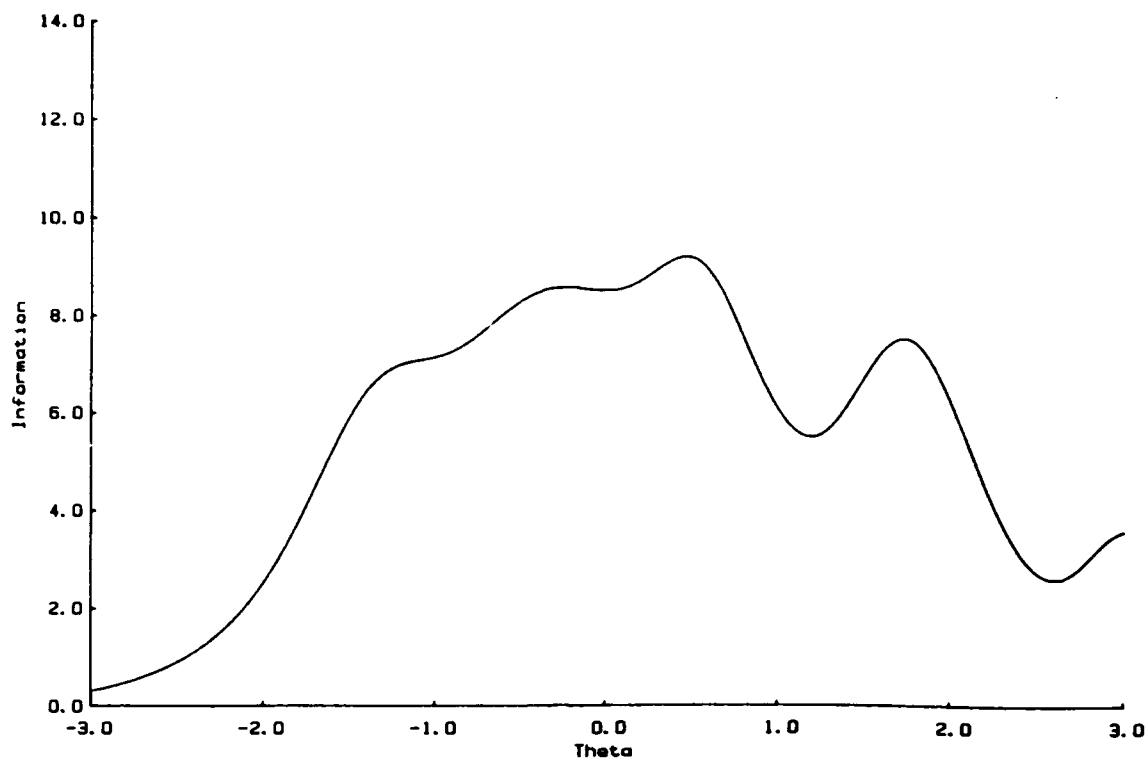


Figure A-113. Test Information Curve for General Science Subtest on ASVAB Form 11a (Female Sample).

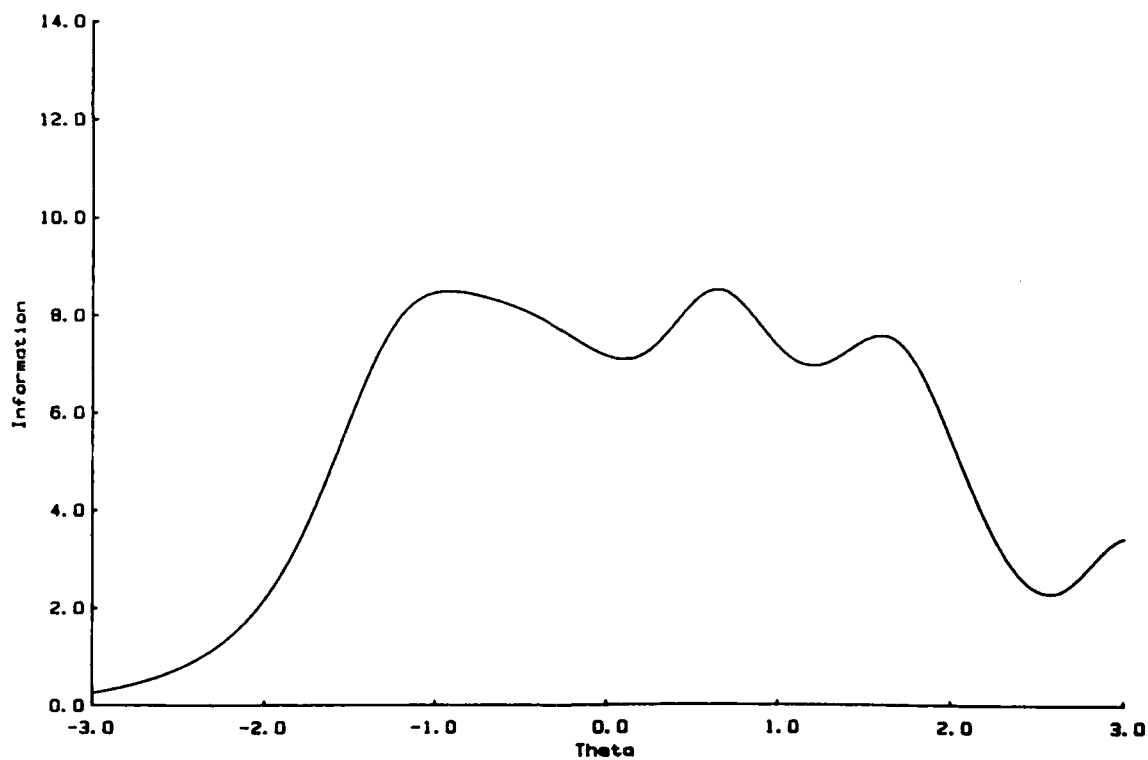


Figure A-114. Test Information Curve for General Science Subtest on ASVAB Form 11b (Female Sample).

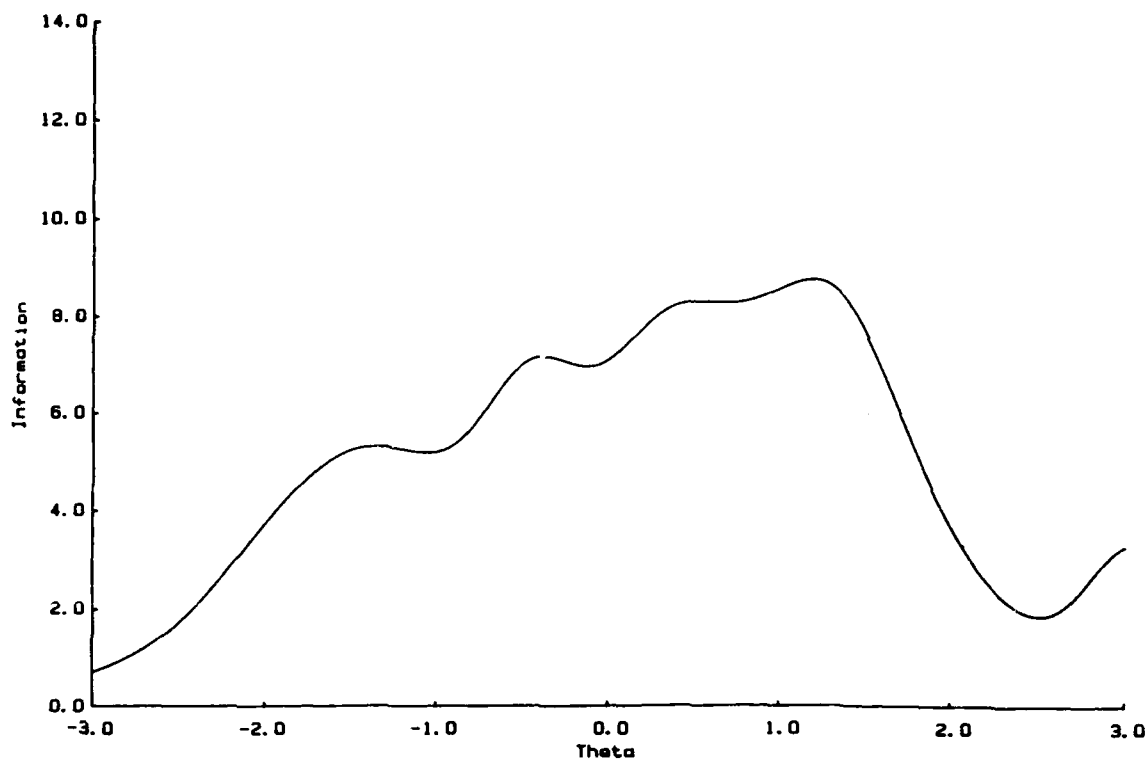


Figure A-115. Test Information Curve for General Science Subtest on ASVAB Form 12a (Female Sample).

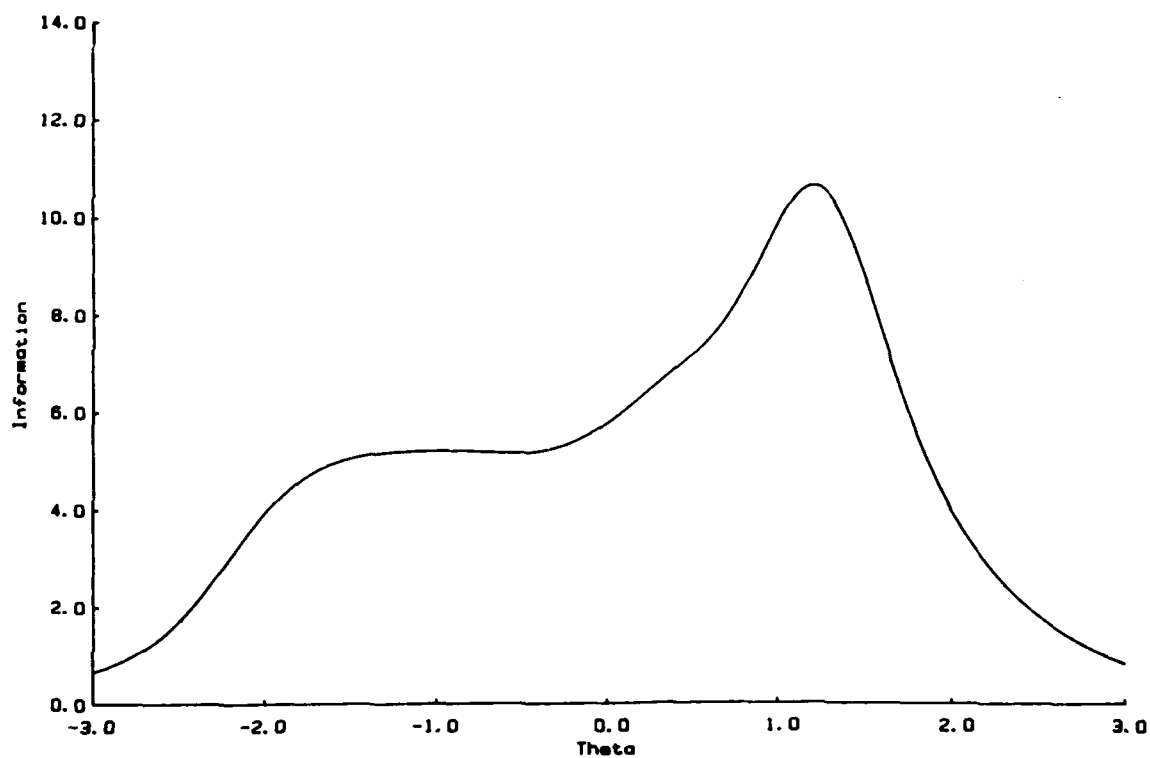


Figure A-116. Test Information Curve for General Science Subtest on ASVAB Form 12b (Female Sample).



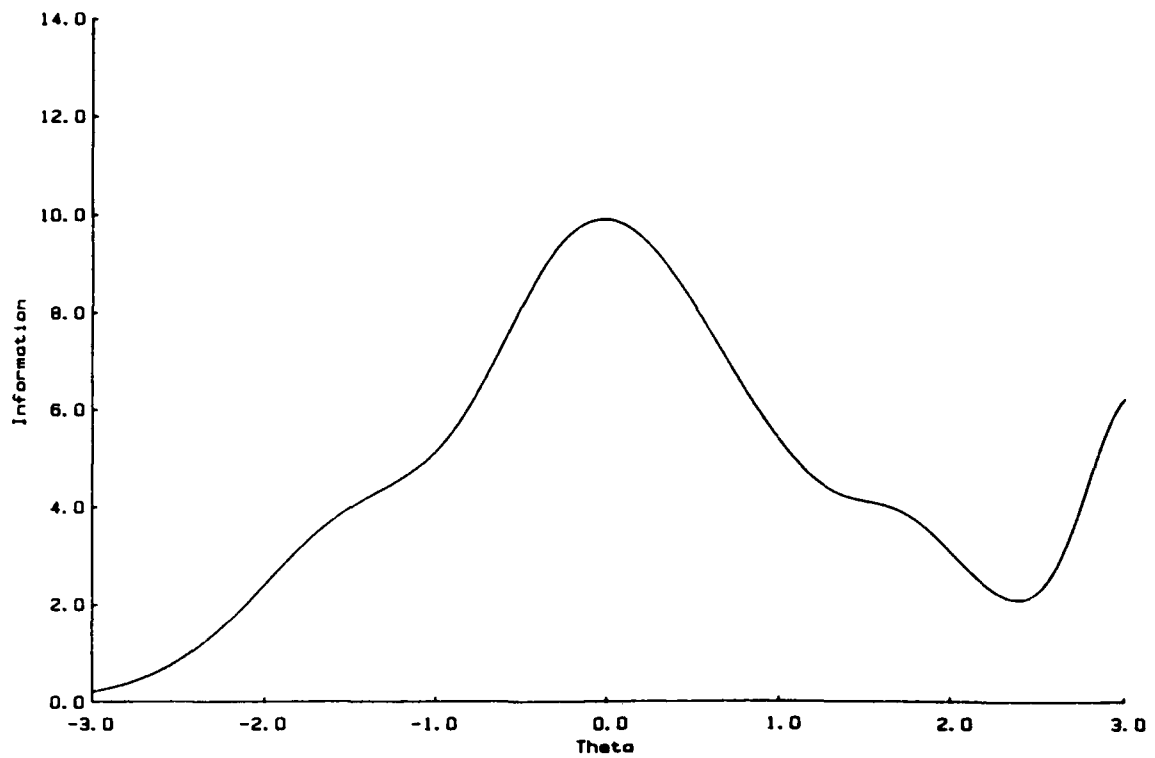


Figure A-117. Test Information Curve for General Science Subtest on ASVAB Form 13a (Female Sample).

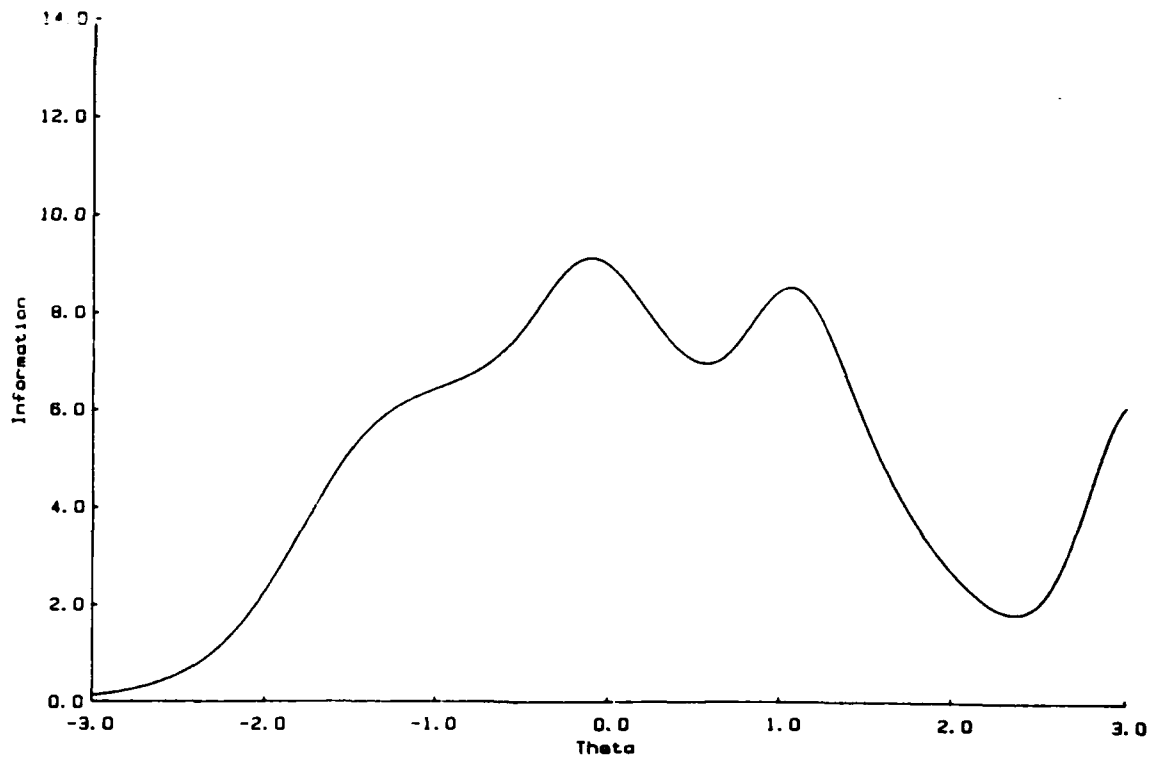


Figure A-118. Test Information Curve for General Science Subtest on ASVAB Form 13b (Female Sample).

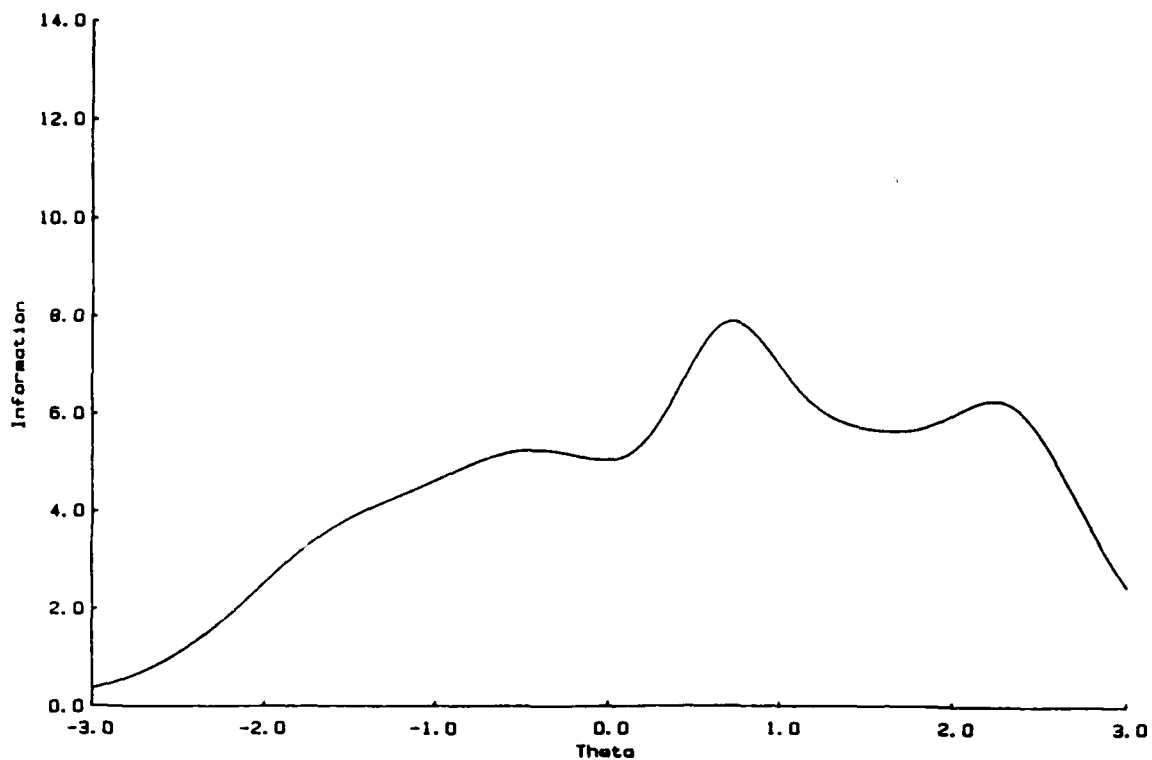


Figure A-119. Test Information Curve for General Science Subtest on ASVAB Form 13c (Female Sample).

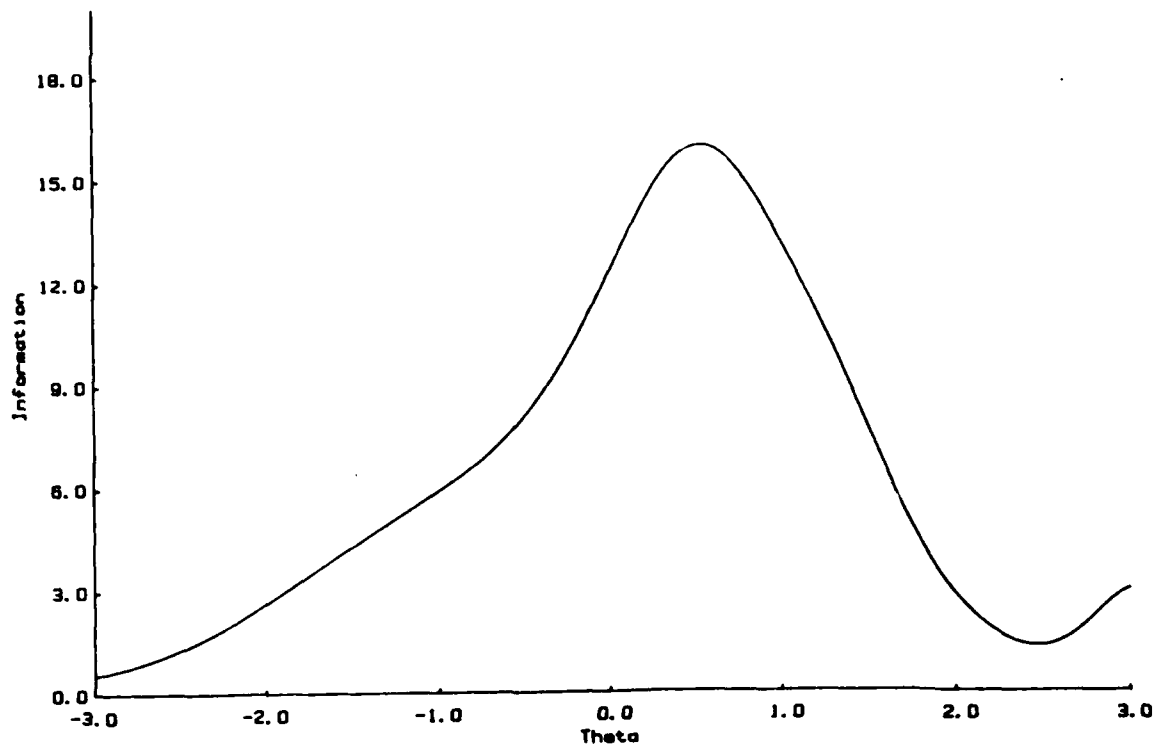


Figure A-120. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 11a (Female Sample).

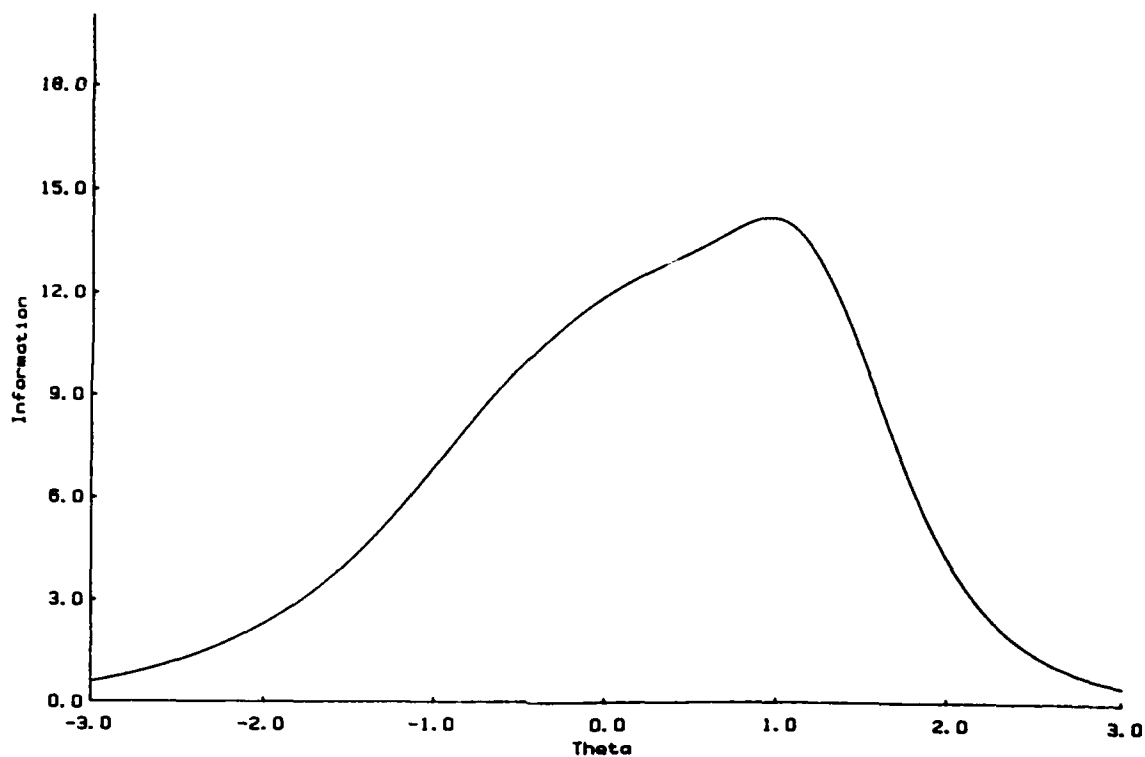


Figure A-121. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 11b (Female Sample).

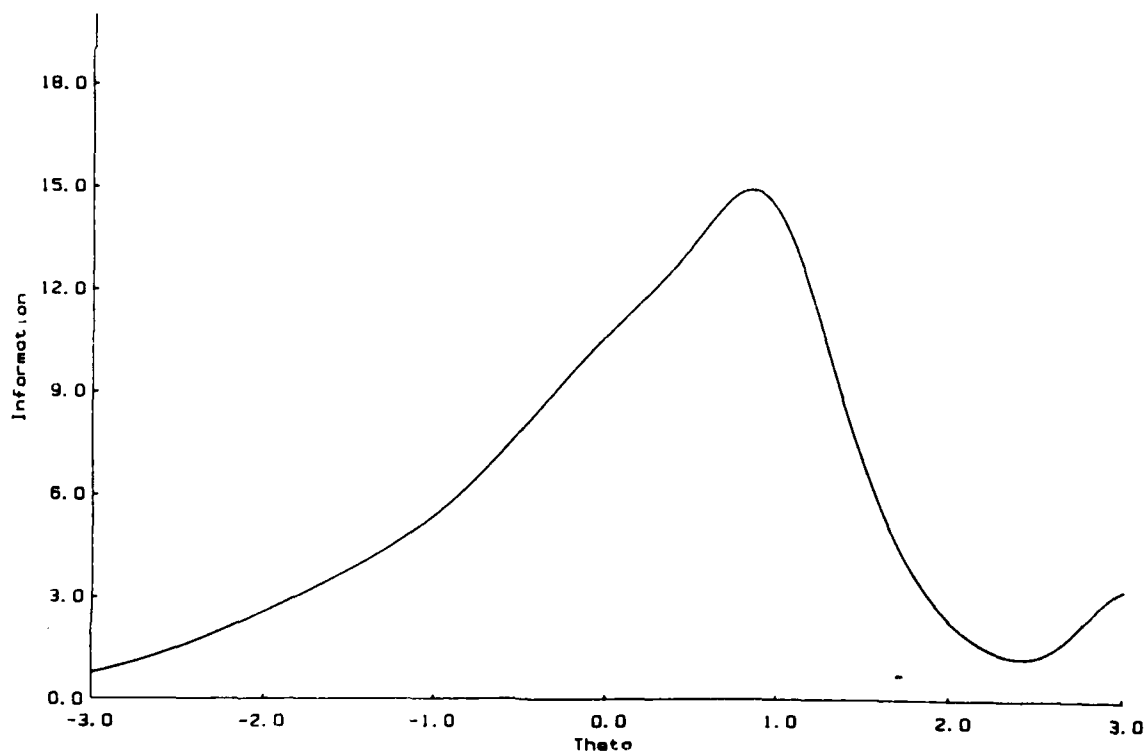


Figure A-122. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 12a (Female Sample).

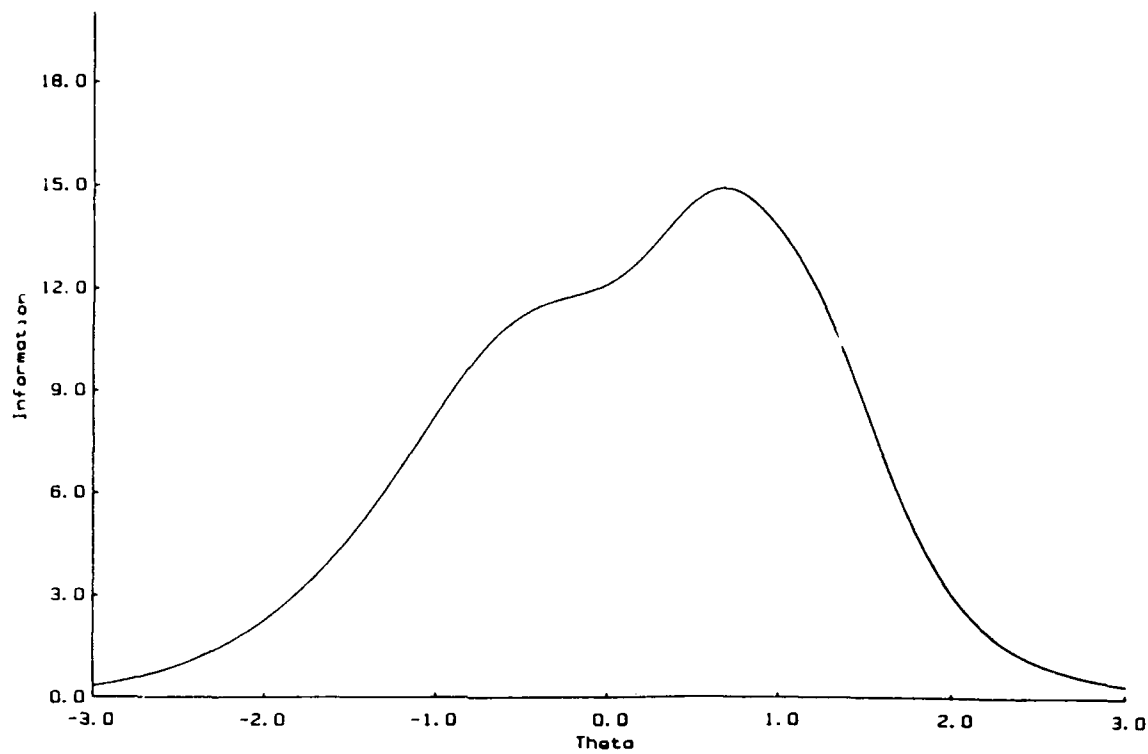


Figure A-123. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 12b (Female Sample).

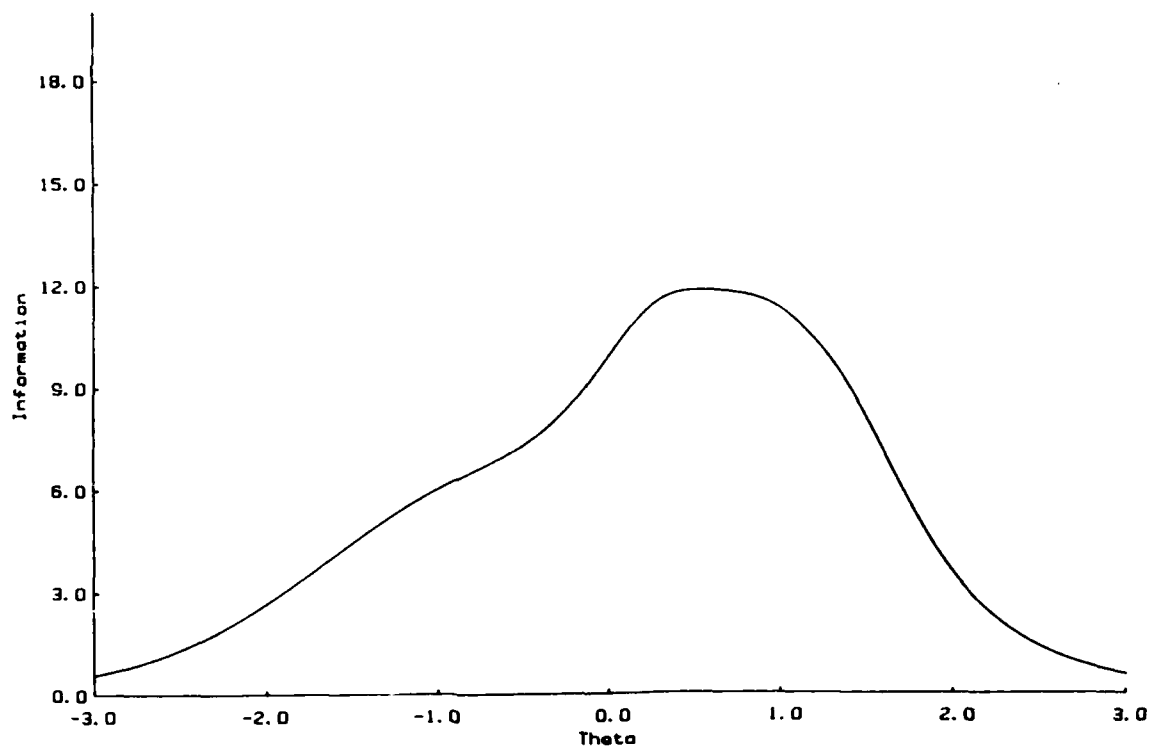


Figure A-124. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13a (Female Sample).

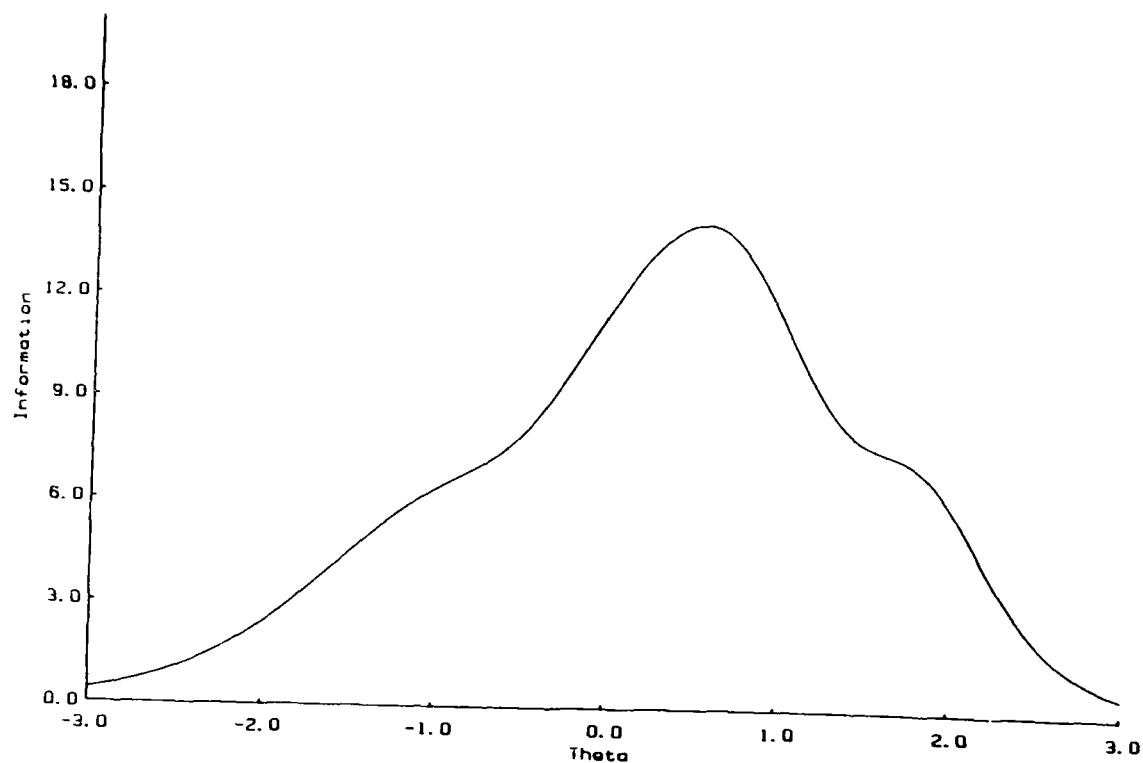


Figure A-125. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13b (Female Sample).

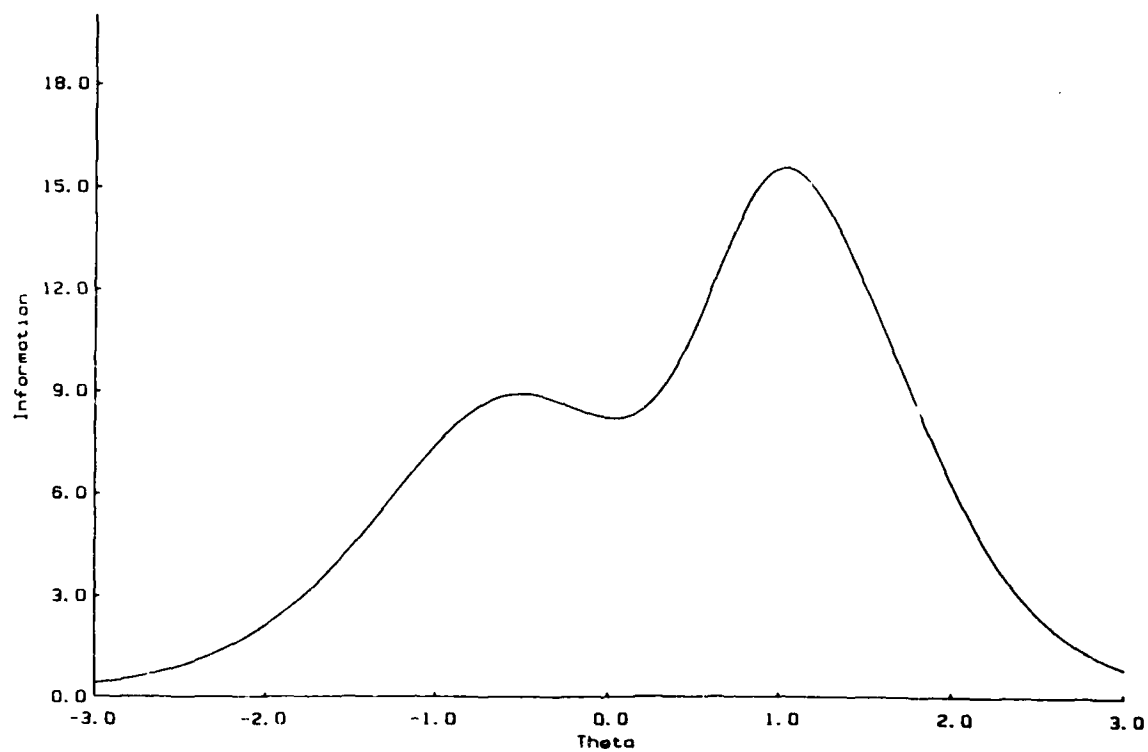


Figure A-126. Test Information Curve for Arithmetic Reasoning Subtest on ASVAB Form 13c (Female Sample).

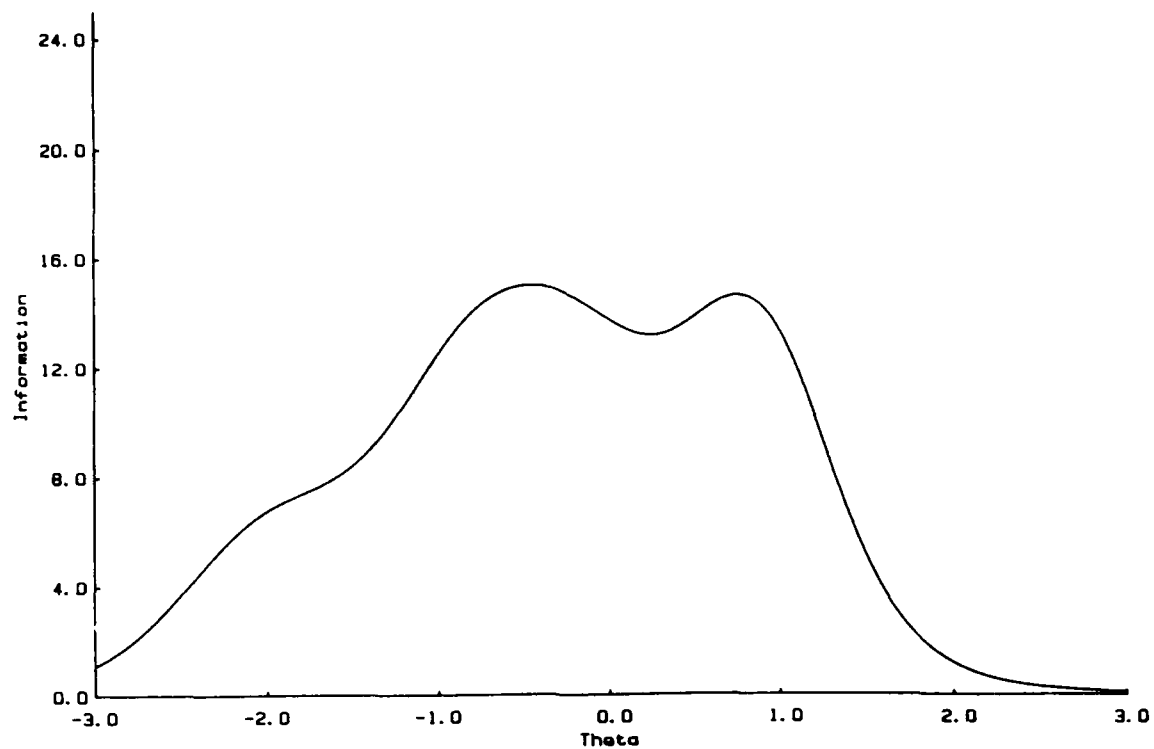


Figure A-127. Test Information Curve for Word Knowledge Subtest on ASVAB Form 11a (Female Sample).

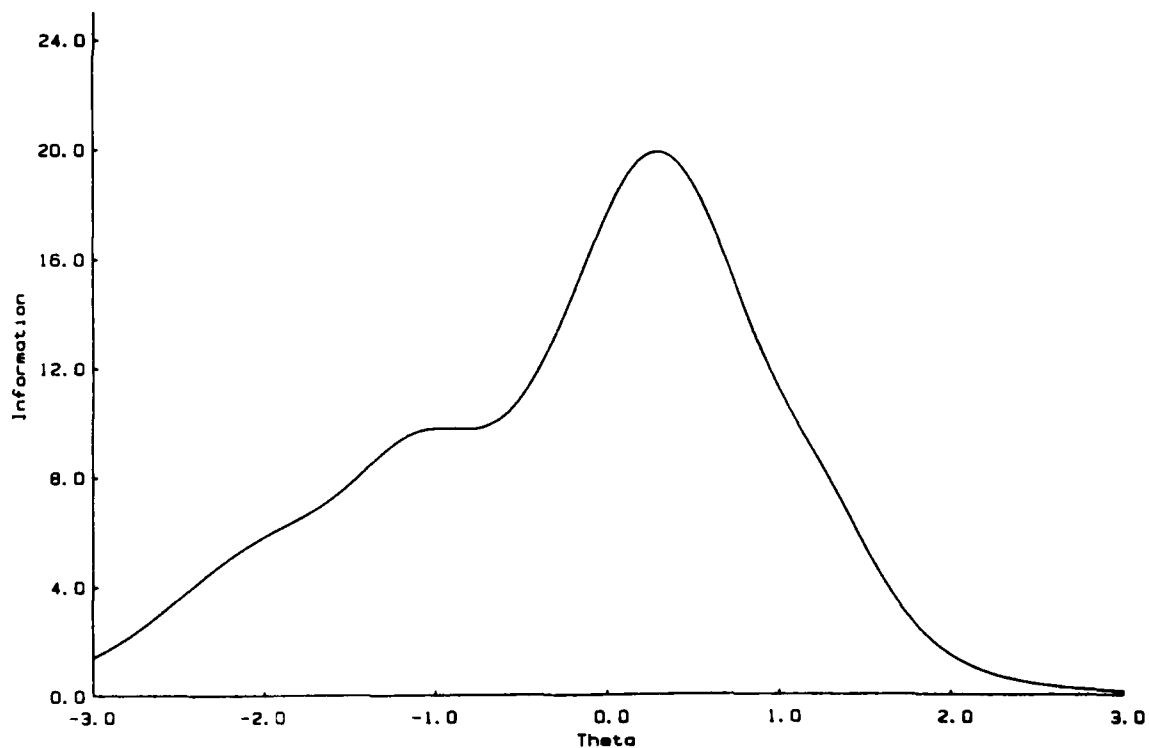


Figure A-128. Test Information Curve for Word Knowledge Subtest on ASVAB Form 11b (Female Sample).

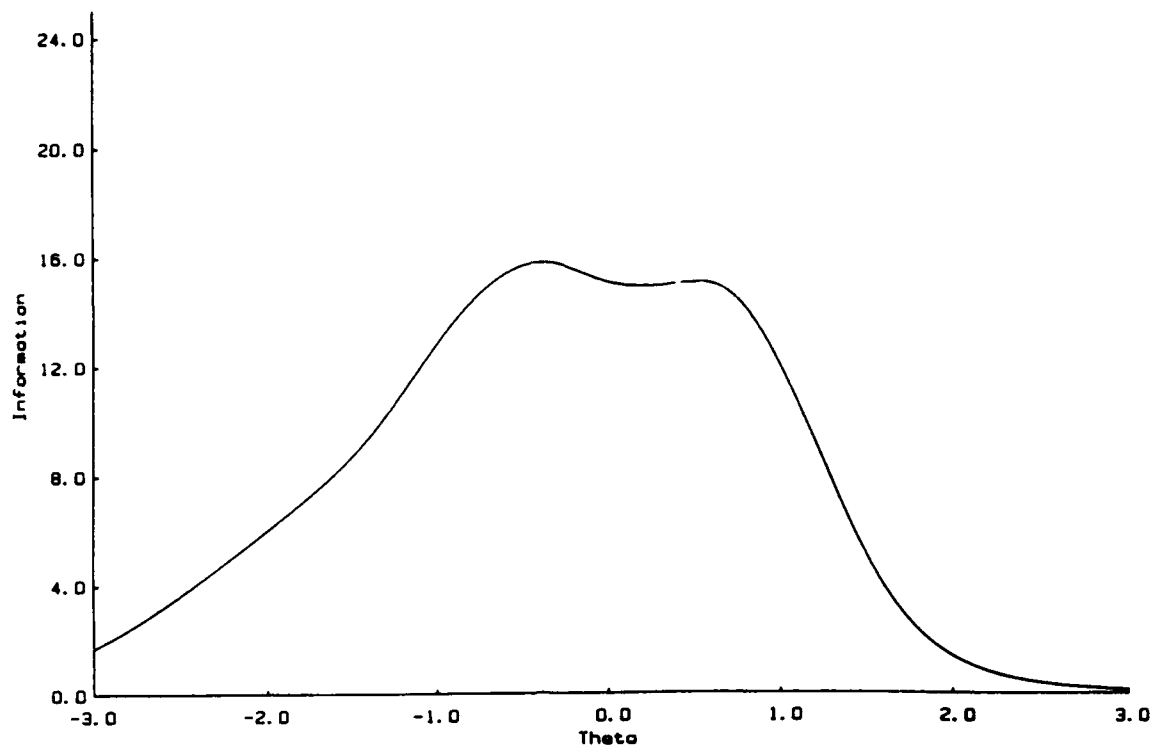


Figure A-129. Test Information Curve for Word Knowledge Subtest on ASVAB Form 12a (Female Sample).

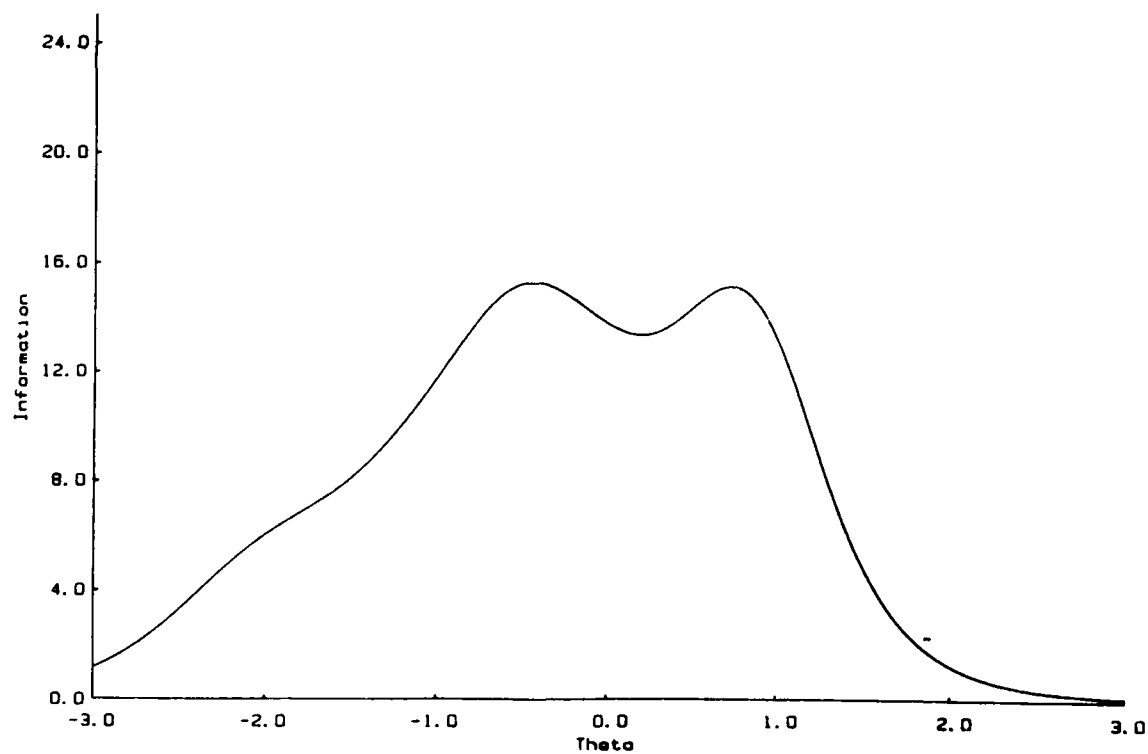


Figure A-130. Test Information Curve for Word Knowledge Subtest on ASVAB Form 12b (Female Sample).

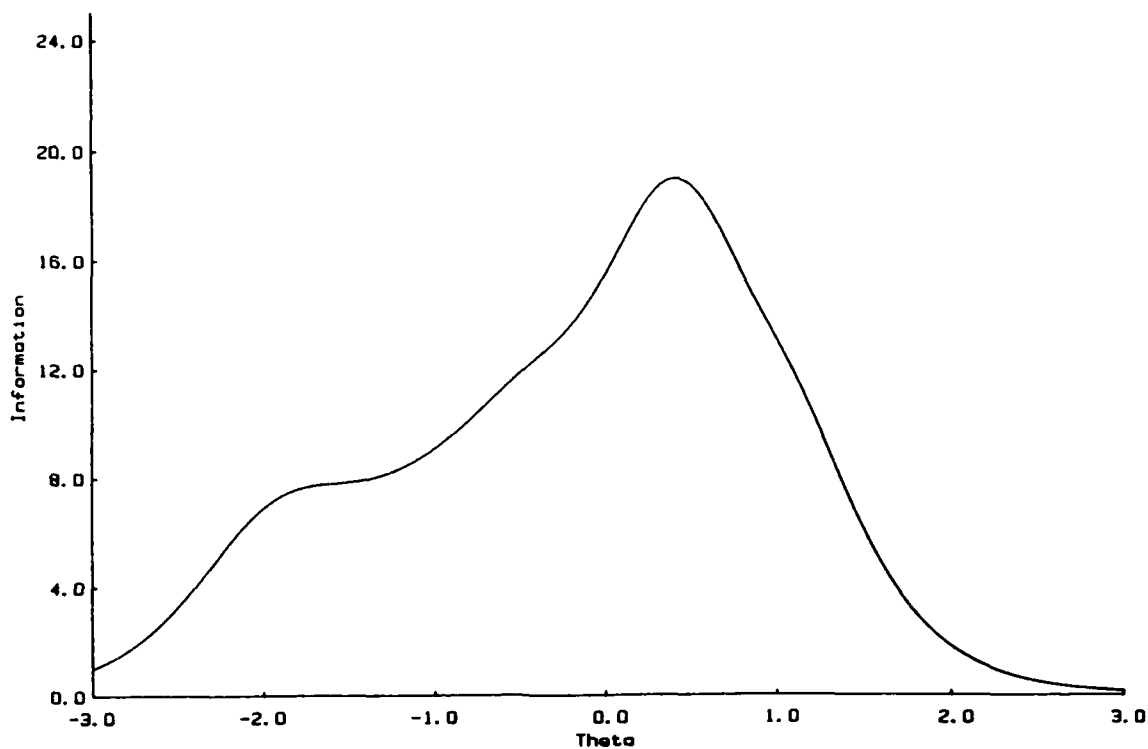


Figure A-131. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13a (Female Sample).

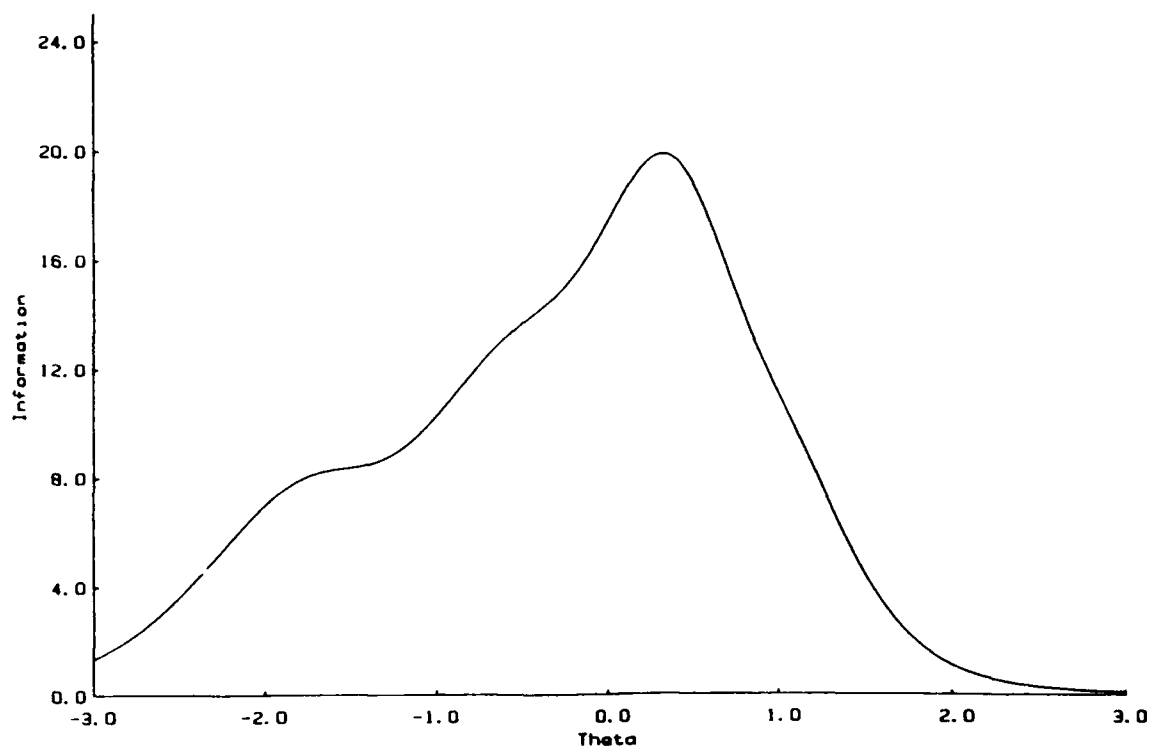


Figure A-132. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13b (Female Sample).



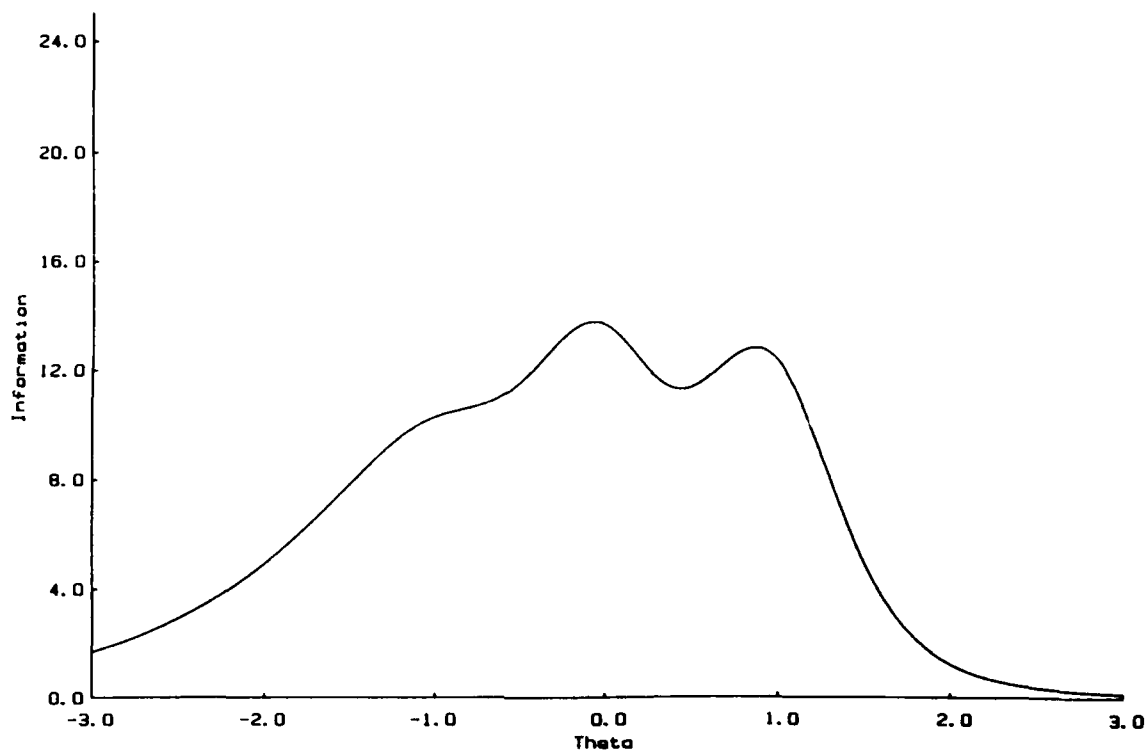


Figure A-133. Test Information Curve for Word Knowledge Subtest on ASVAB Form 13c (Female Sample).

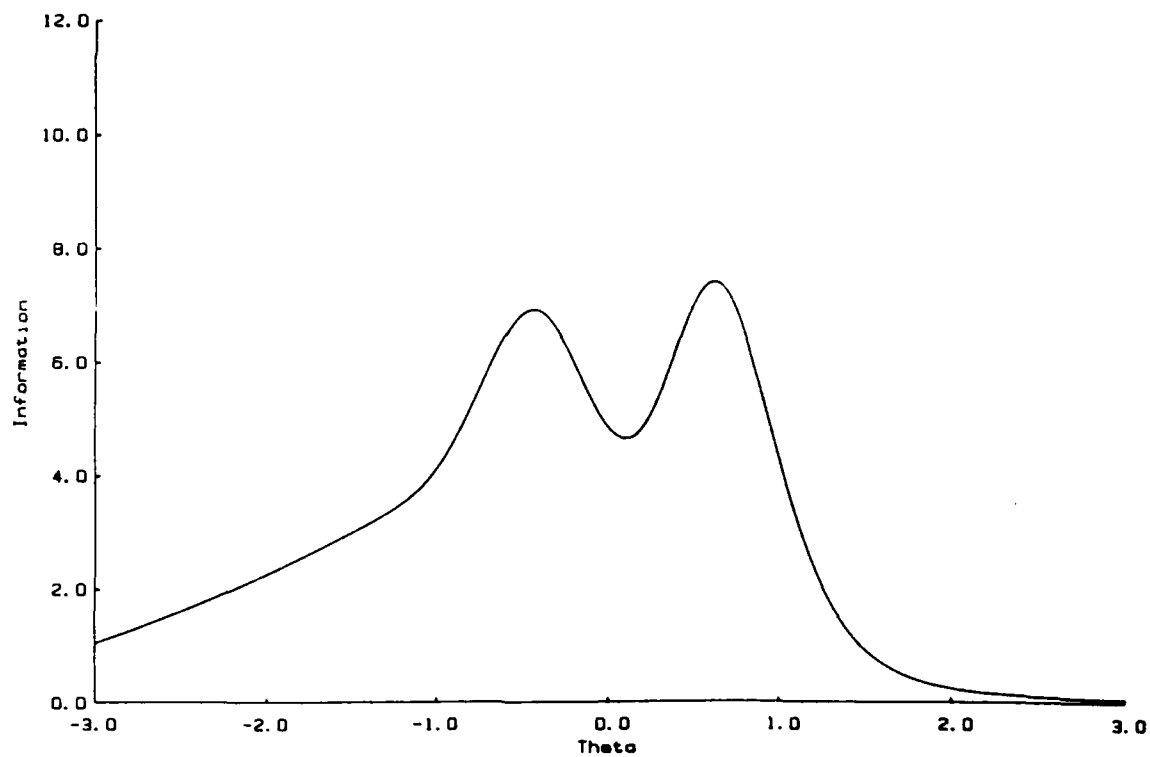


Figure A-134. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 11a (Female Sample).

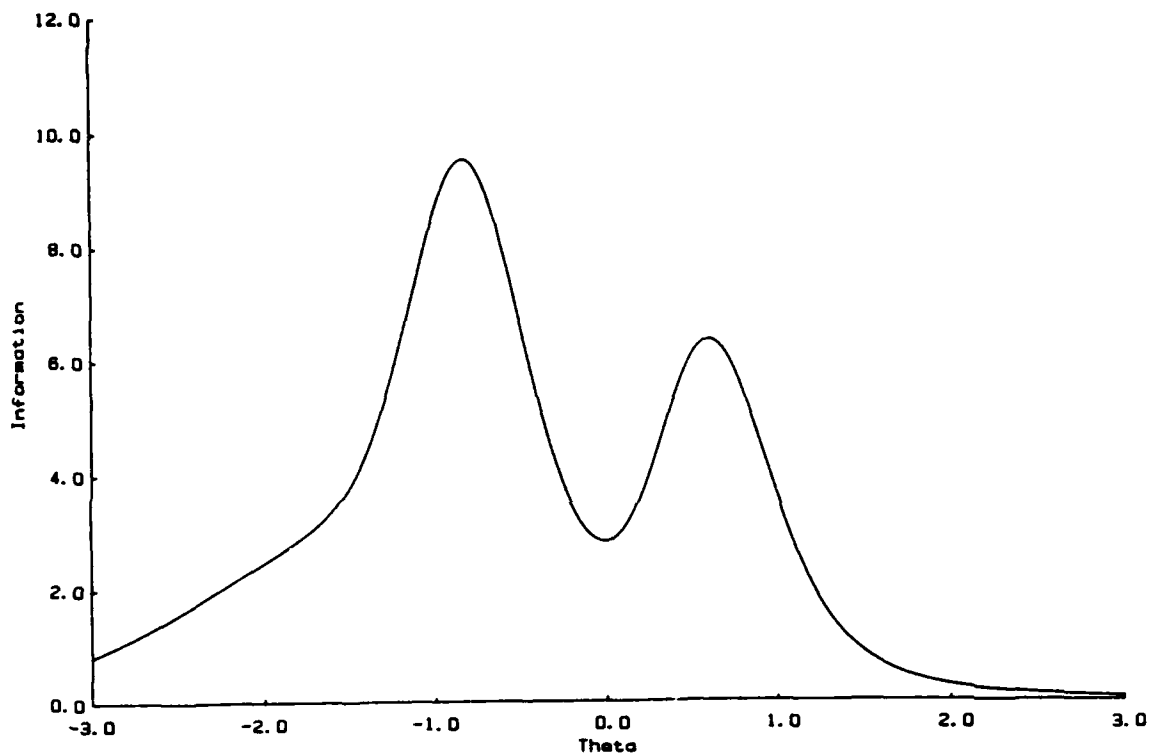


Figure A-135. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 11b (Female Sample).

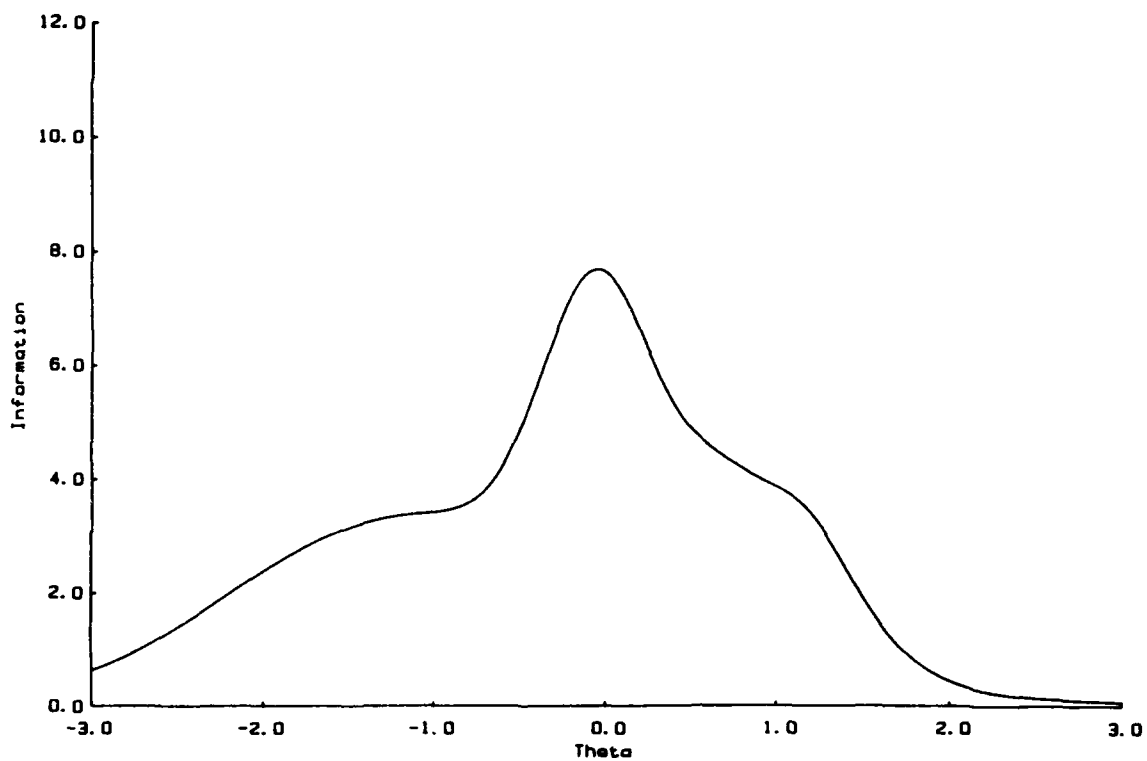


Figure A-136. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 12a (Female Sample).

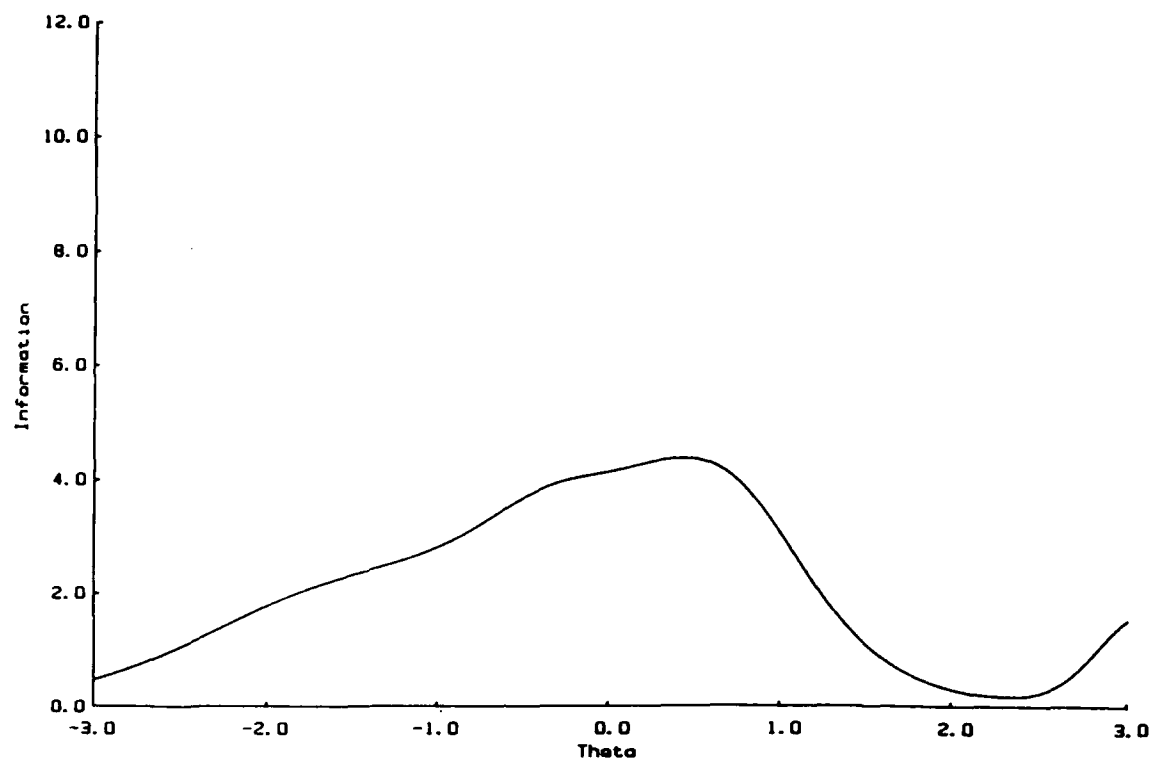


Figure A-137. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 12b (Female Sample).

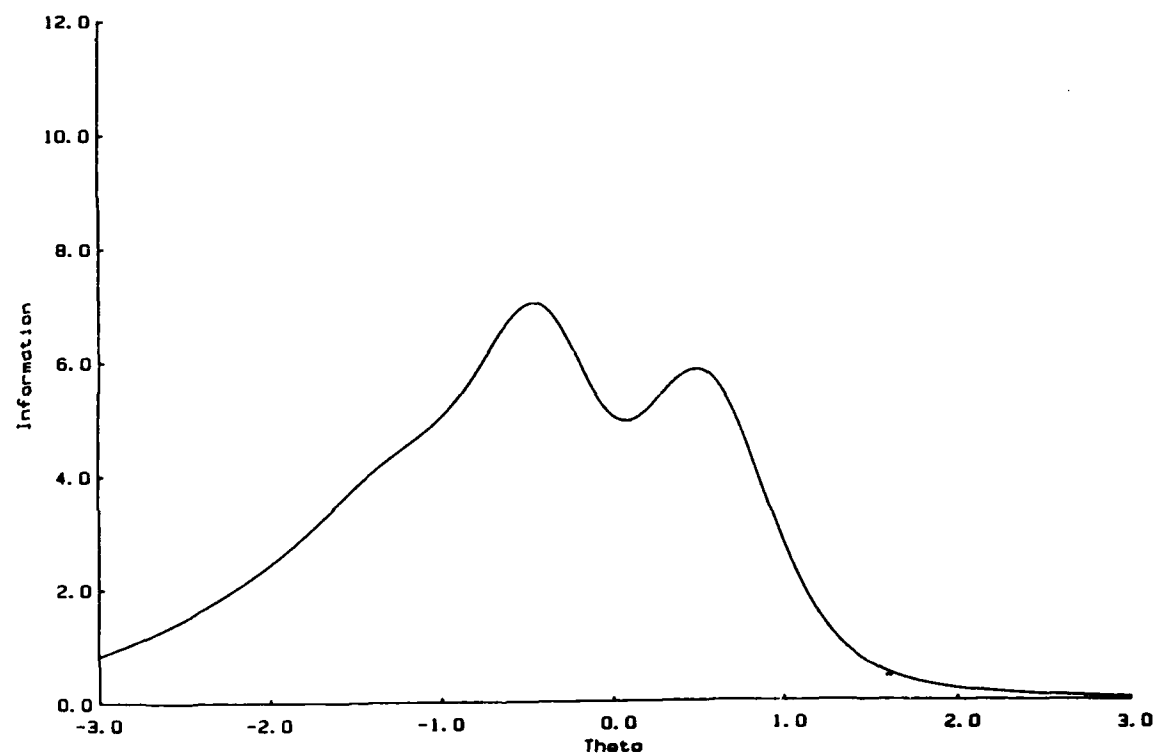


Figure A-138. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13a (Female Sample).

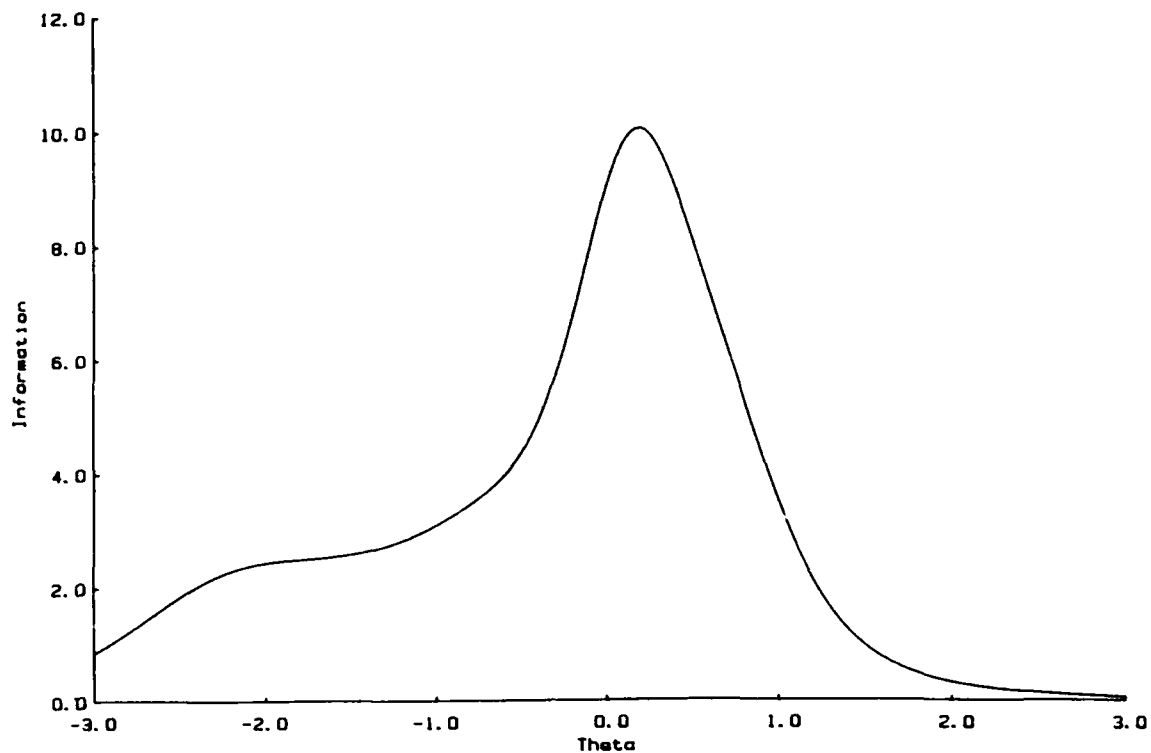


Figure A-139. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13b (Female Sample).

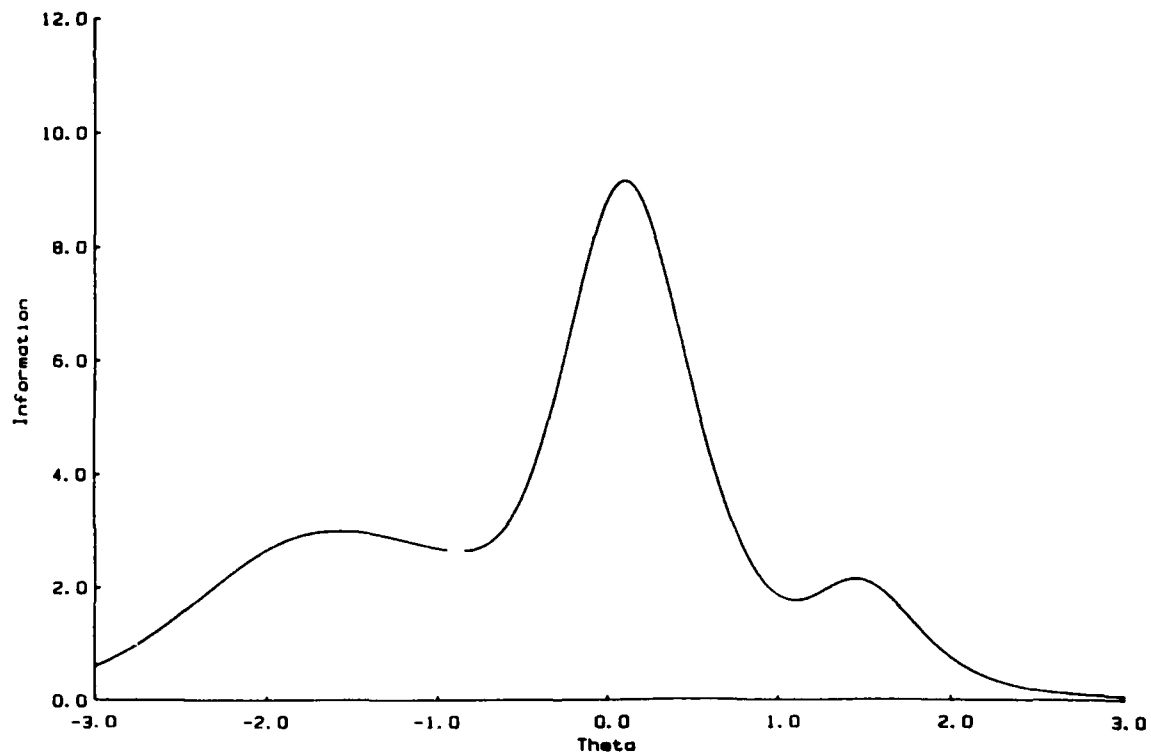


Figure A-140. Test Information Curve for Paragraph Comprehension Subtest on ASVAB Form 13c (Female Sample).

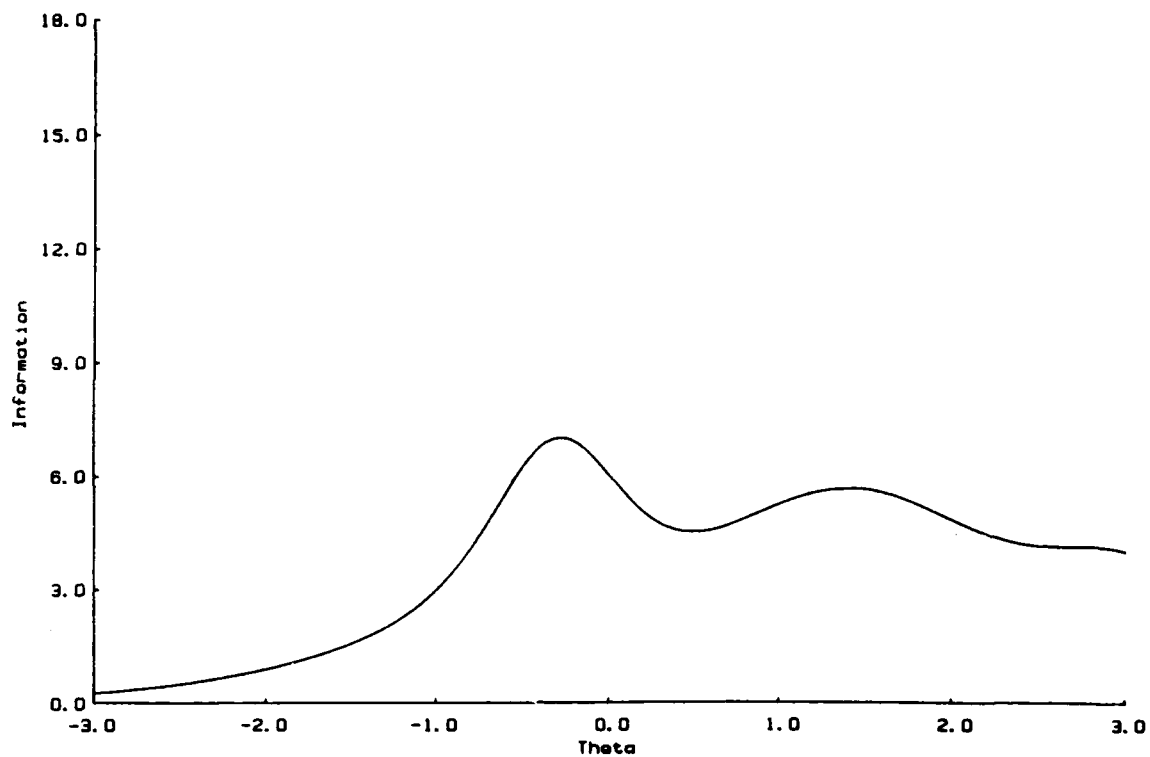


Figure A-141. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 11a (Female Sample).

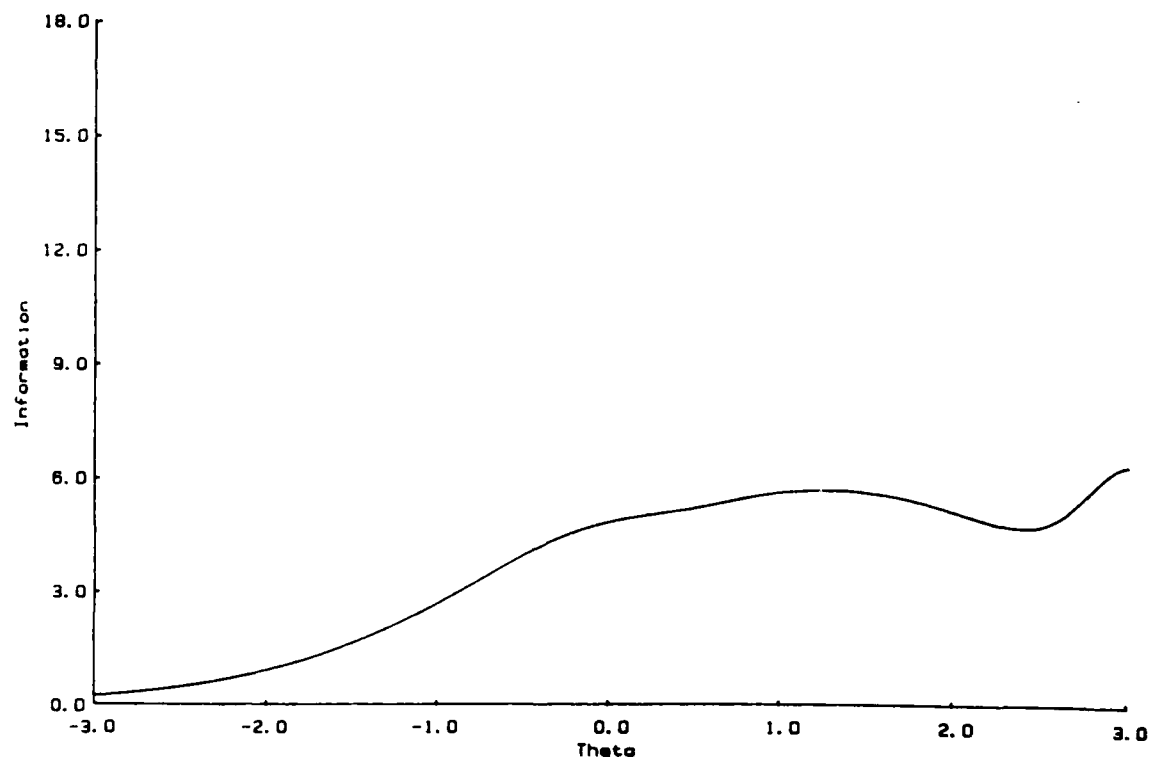


Figure A-142. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 11b (Female Sample).

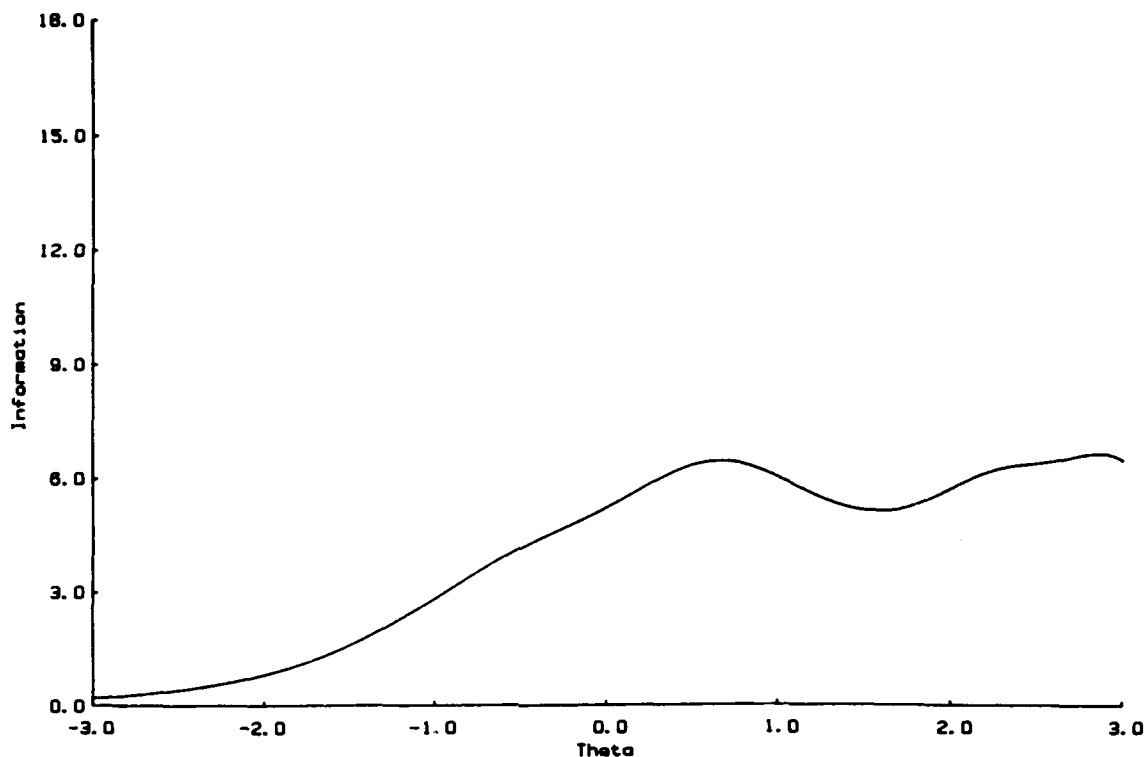


Figure A-143. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 12a (Female Sample).

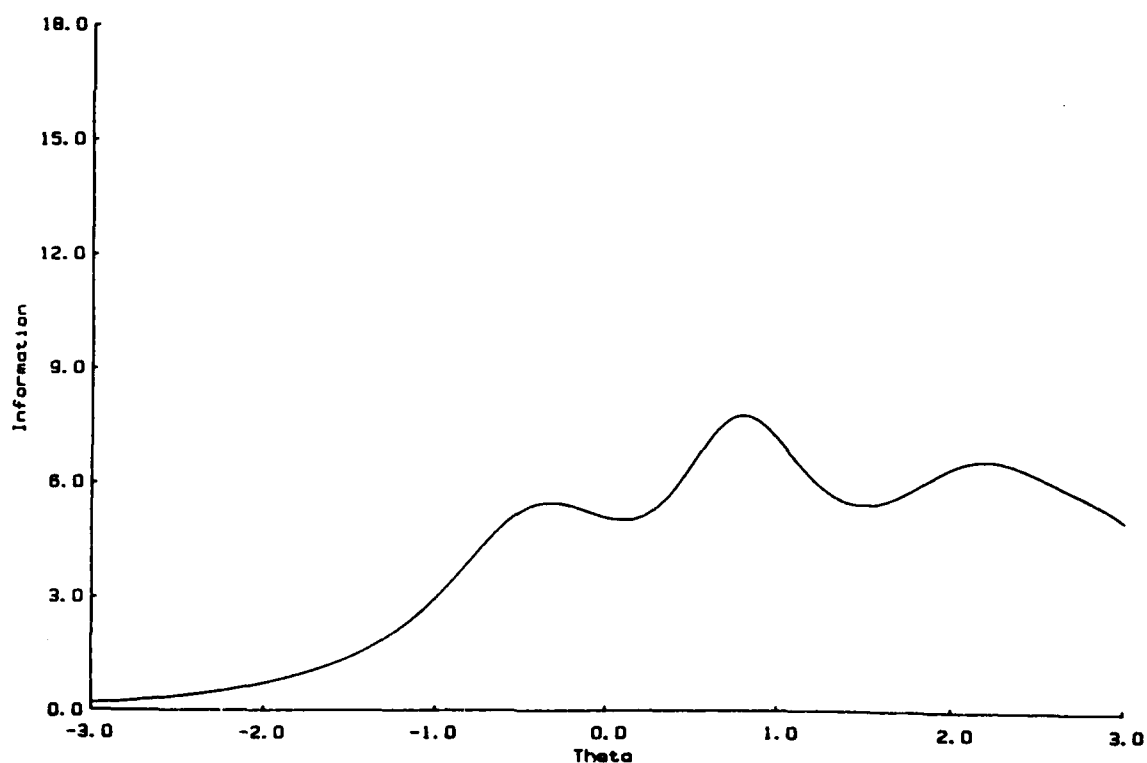


Figure A-144. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 12b (Female Sample).

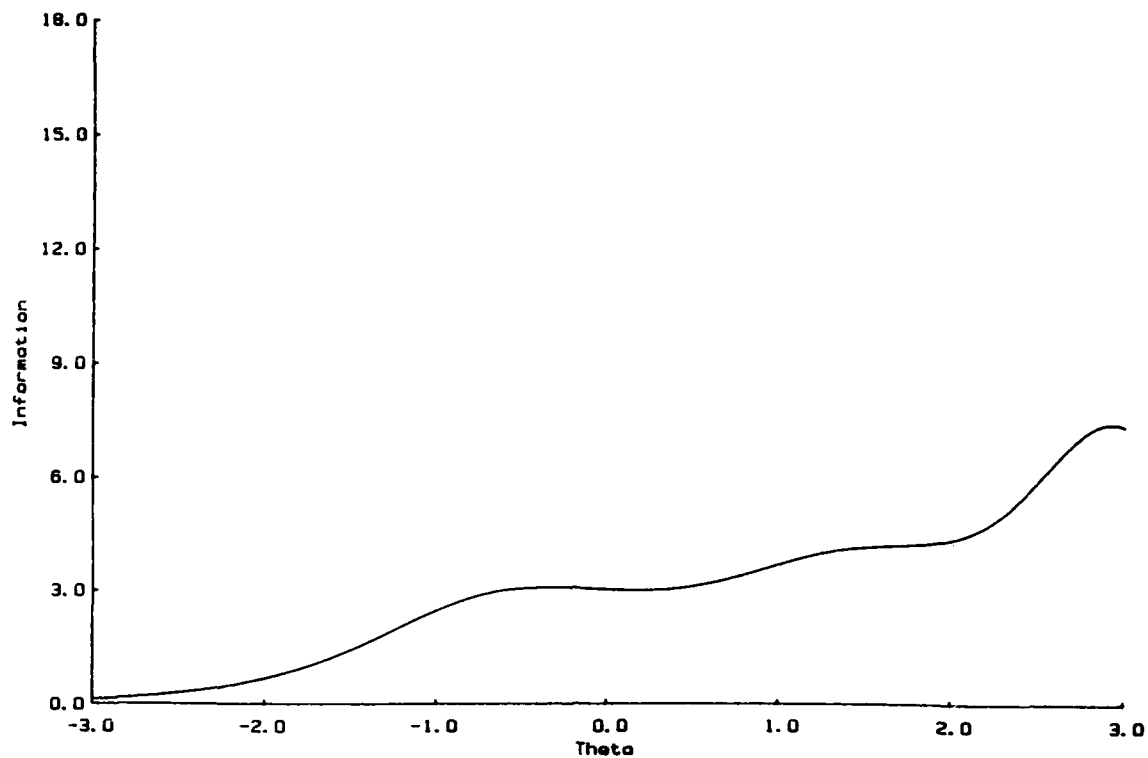


Figure A-145. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 13a (Female Sample).

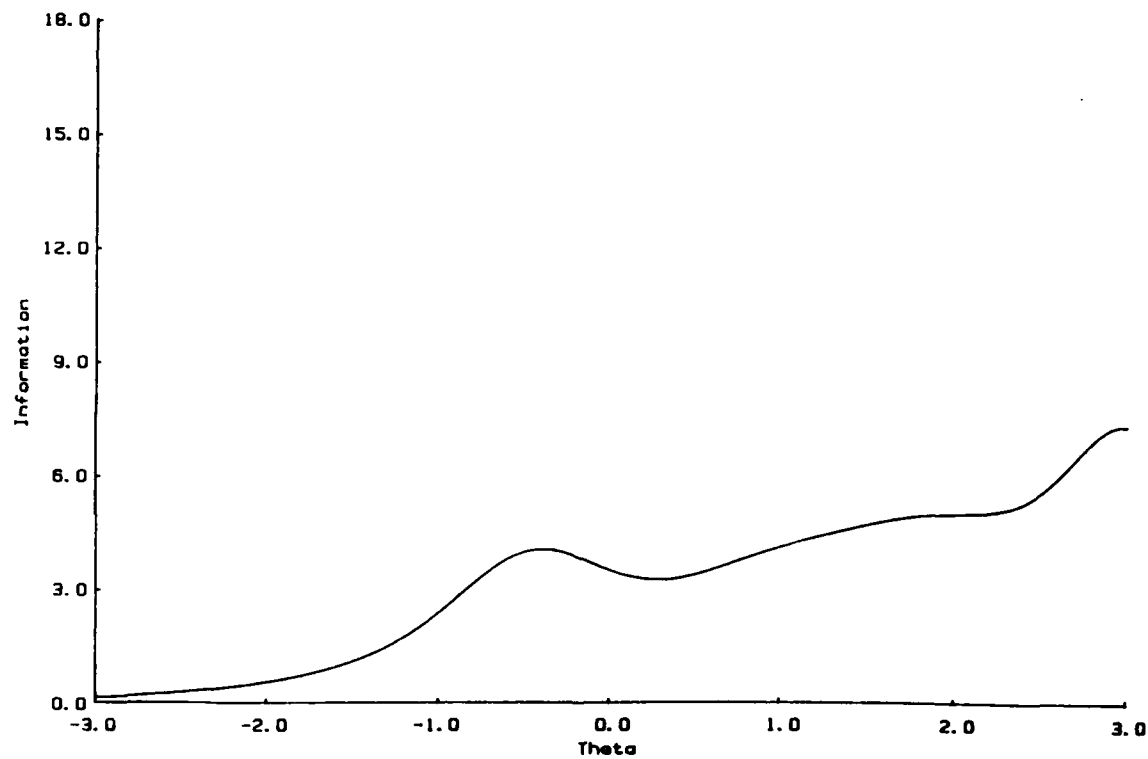


Figure A-146. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 13b (Female Sample).

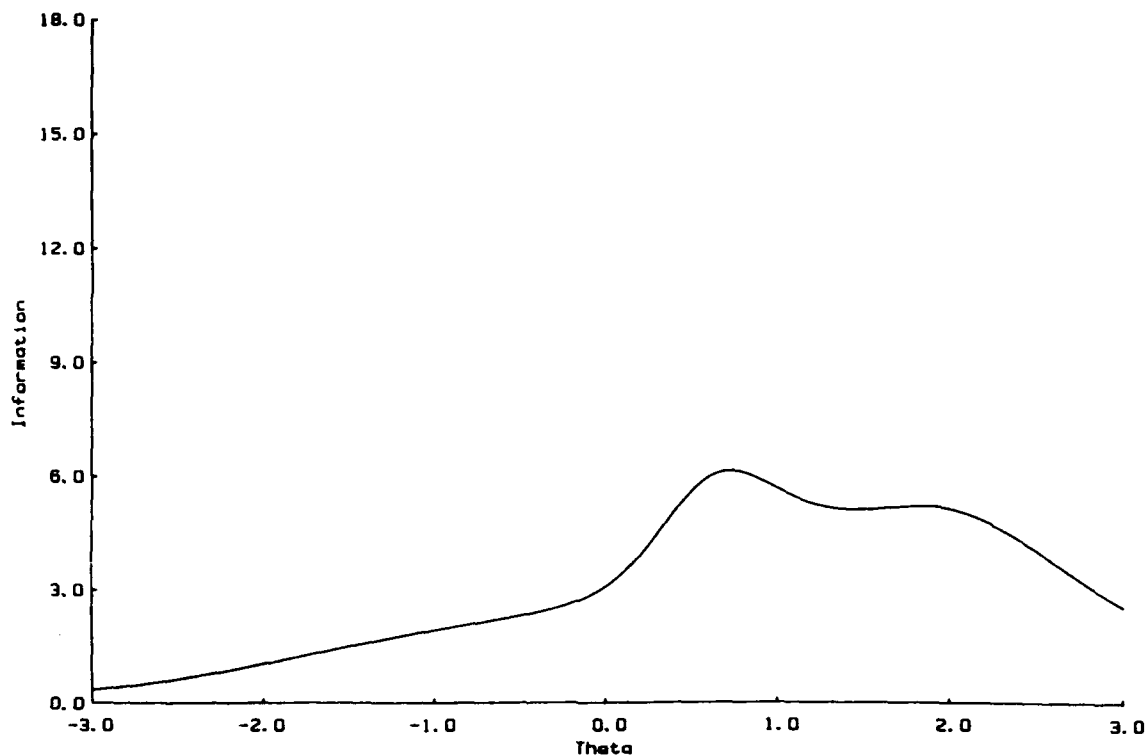


Figure A-147. Test Information Curve for Auto and Shop Information Subtest on ASVAB Form 13c (Female Sample).

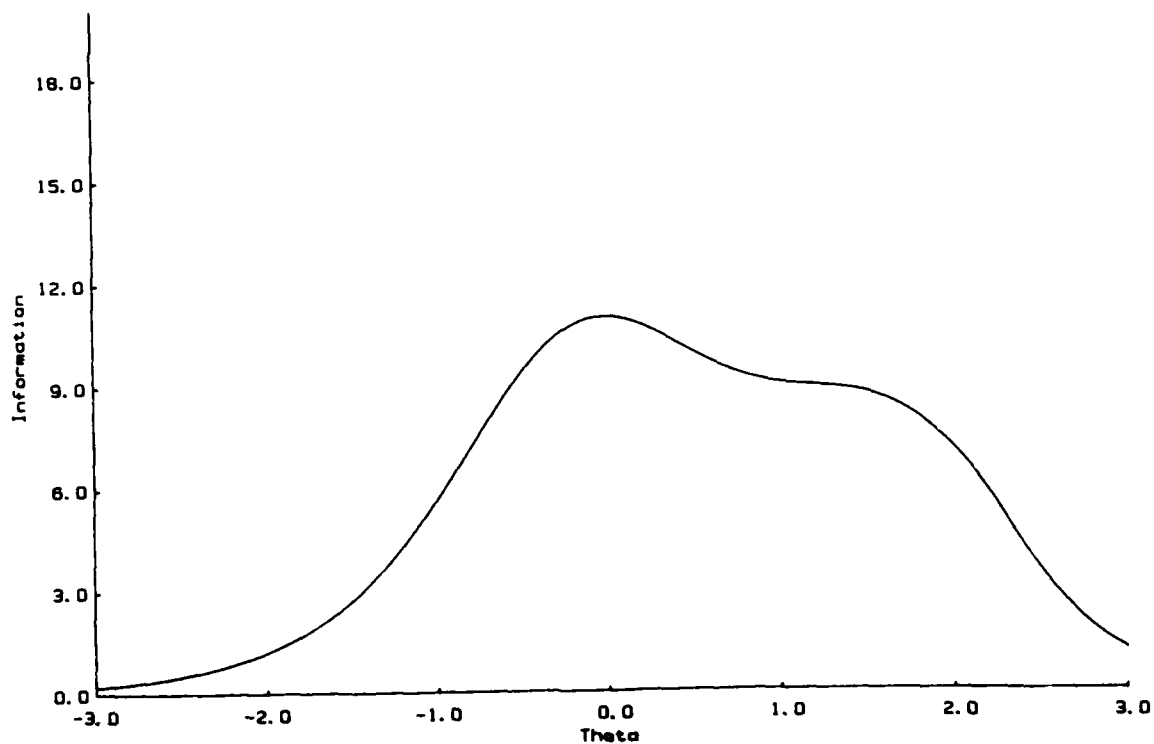


Figure A-148. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 11a (Female Sample).



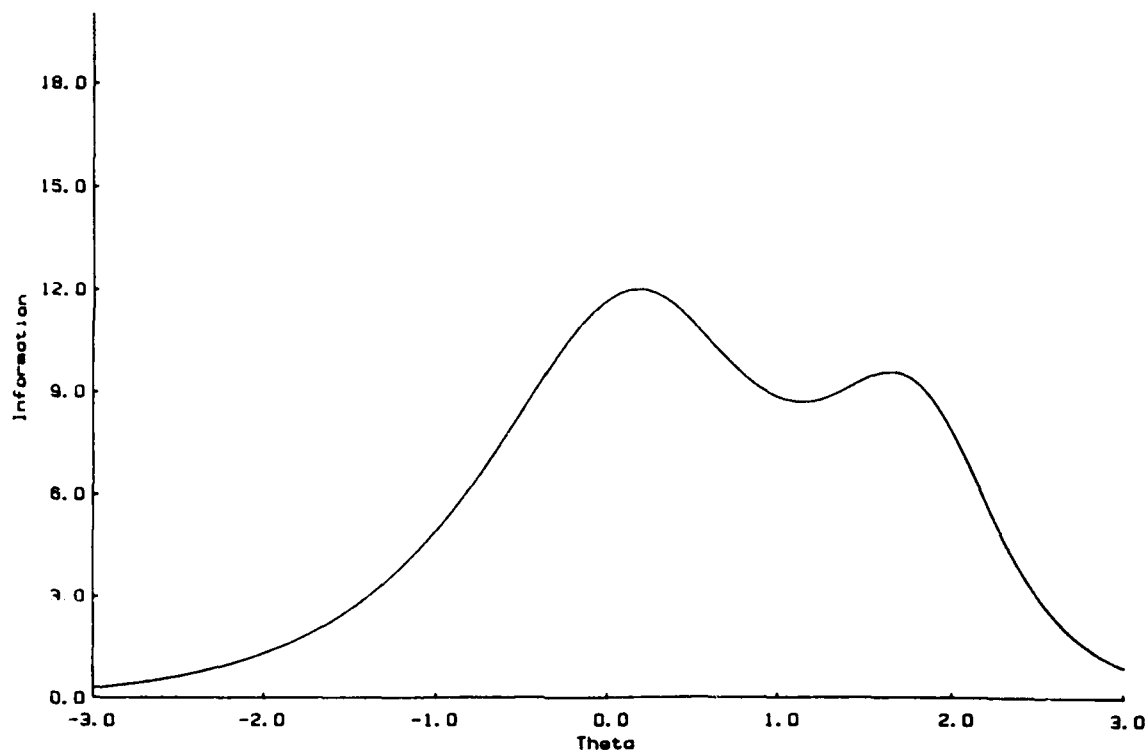


Figure A-149. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 11b (Female Sample).

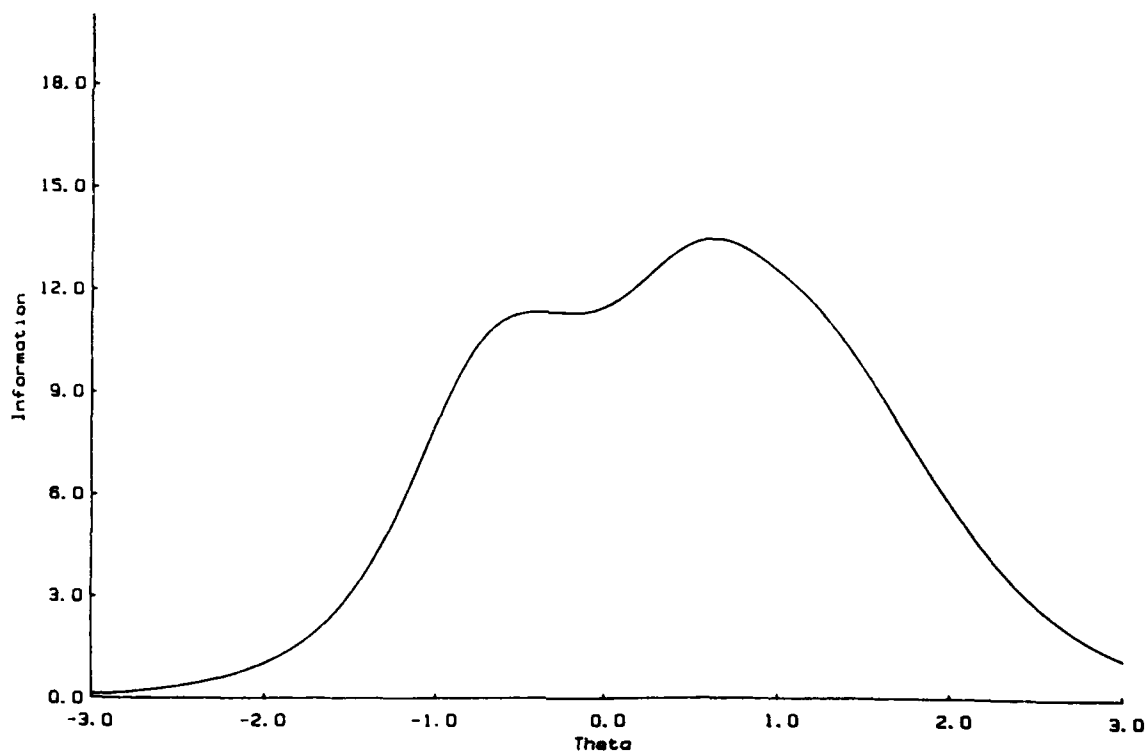


Figure A-150. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 12a (Female Sample).

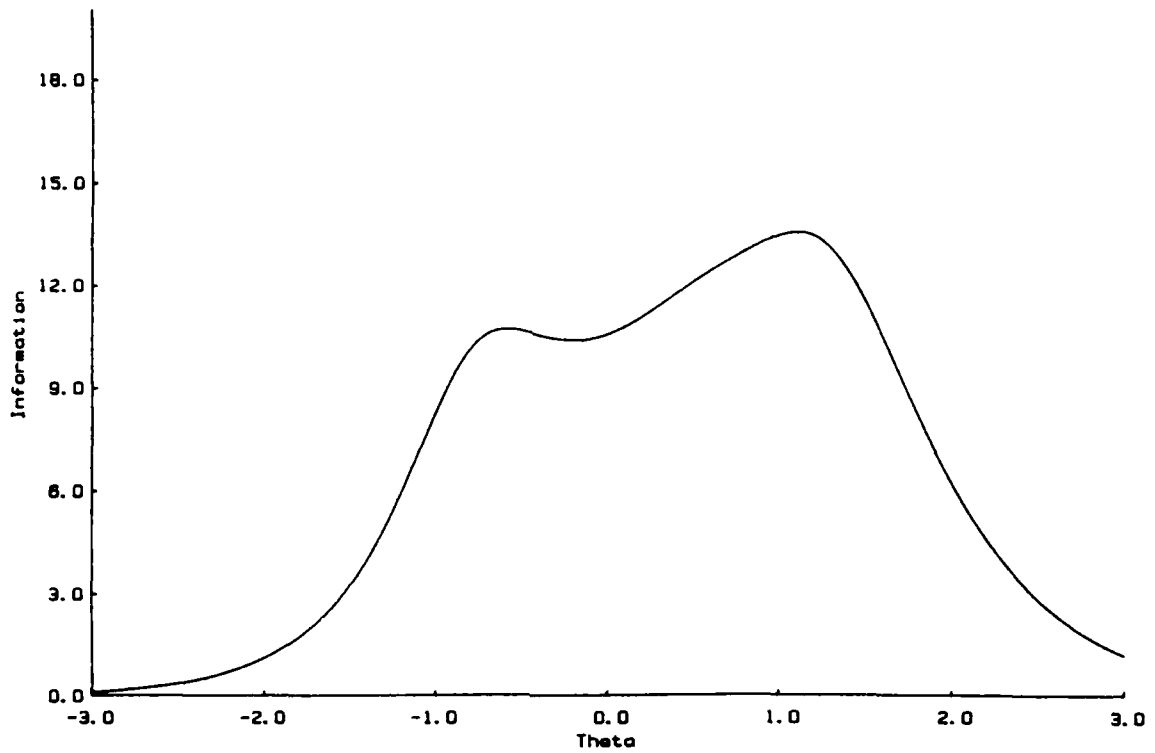


Figure A-151. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 12b (Female Sample).

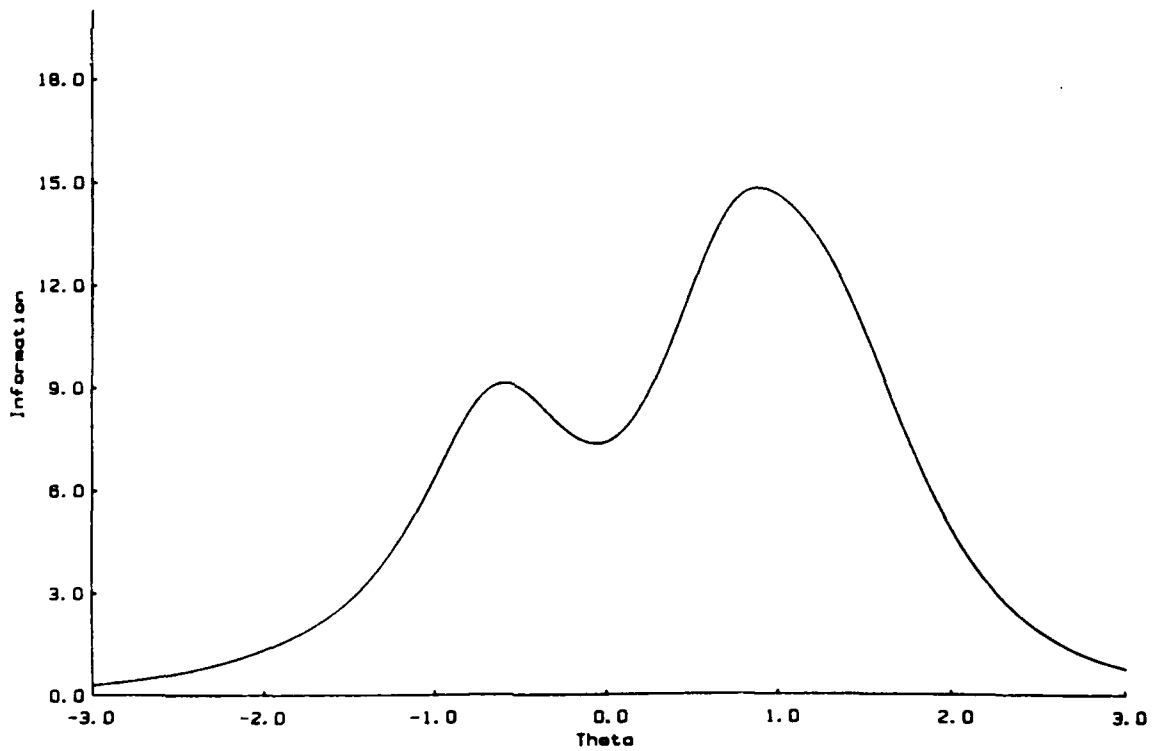


Figure A-152. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 13a (Female Sample).

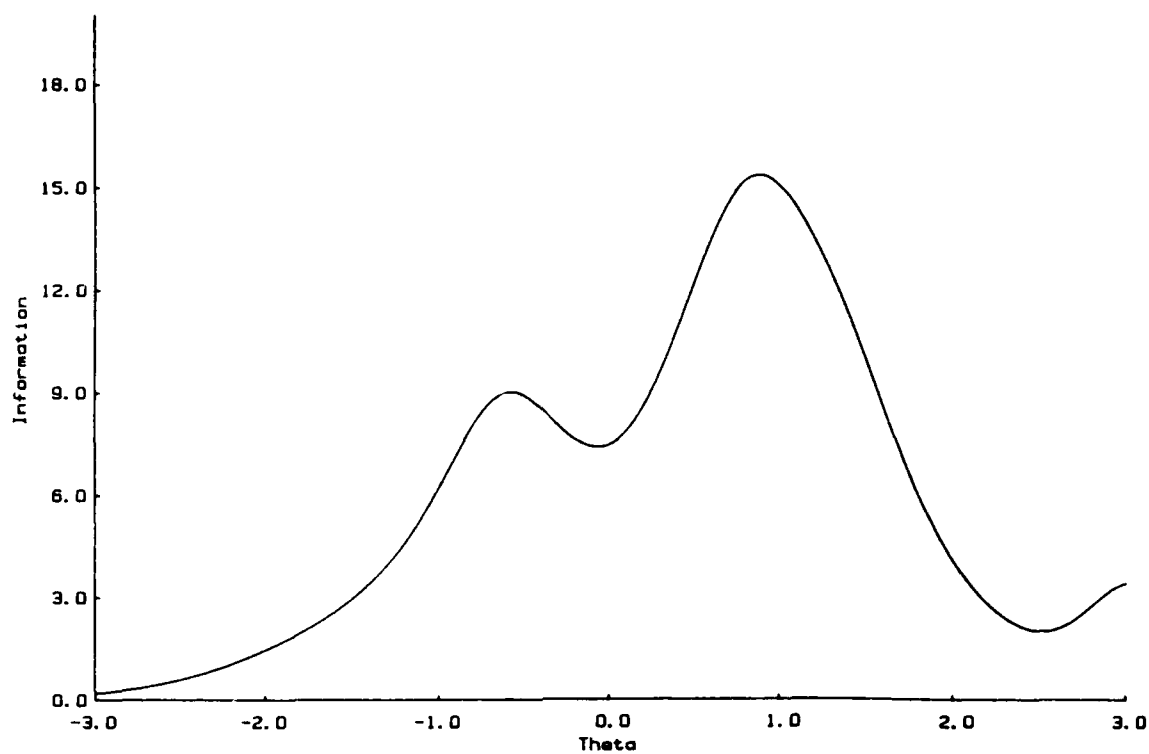


Figure A-153. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 13b (Female Sample).

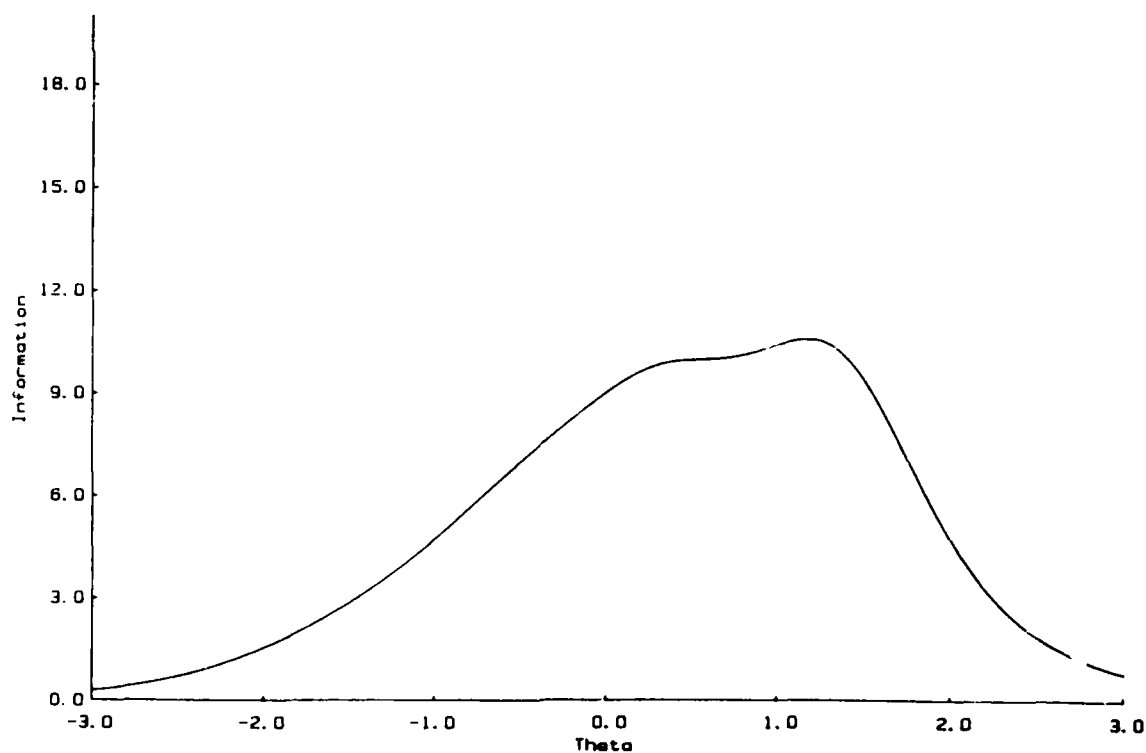


Figure A-154. Test Information Curve for Mathematics Knowledge Subtest on ASVAB Form 13c (Female Sample).

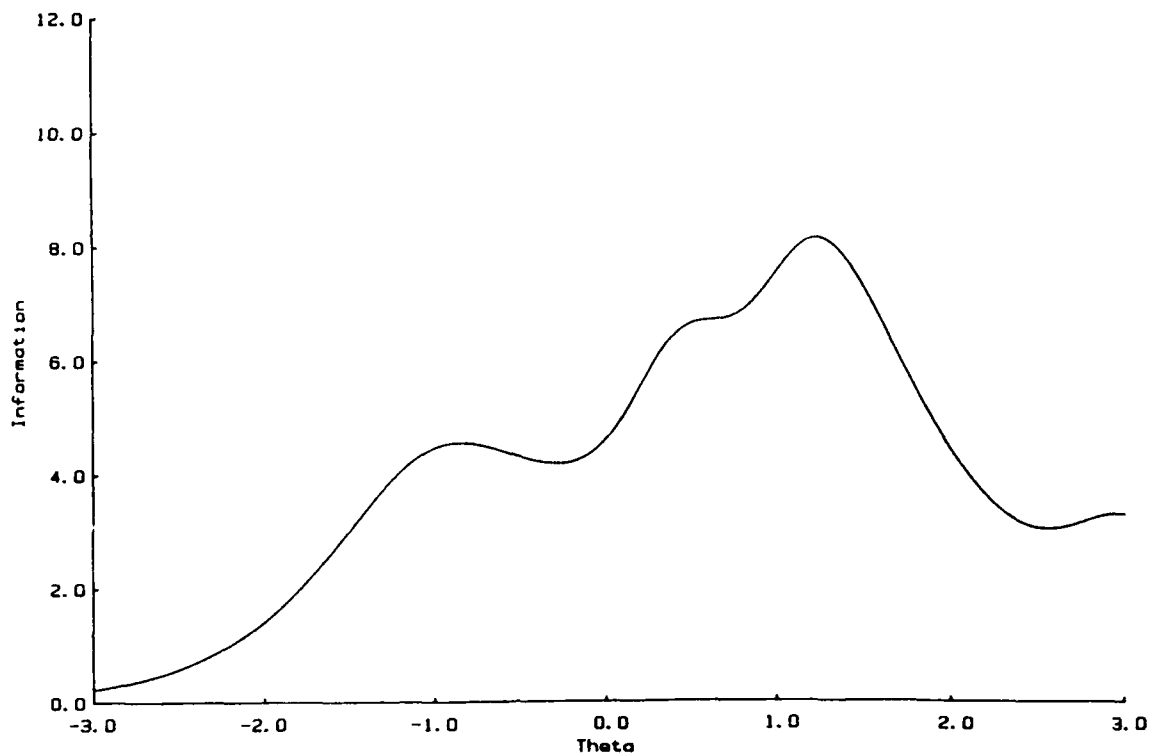


Figure A-155. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 11a (Female Sample).

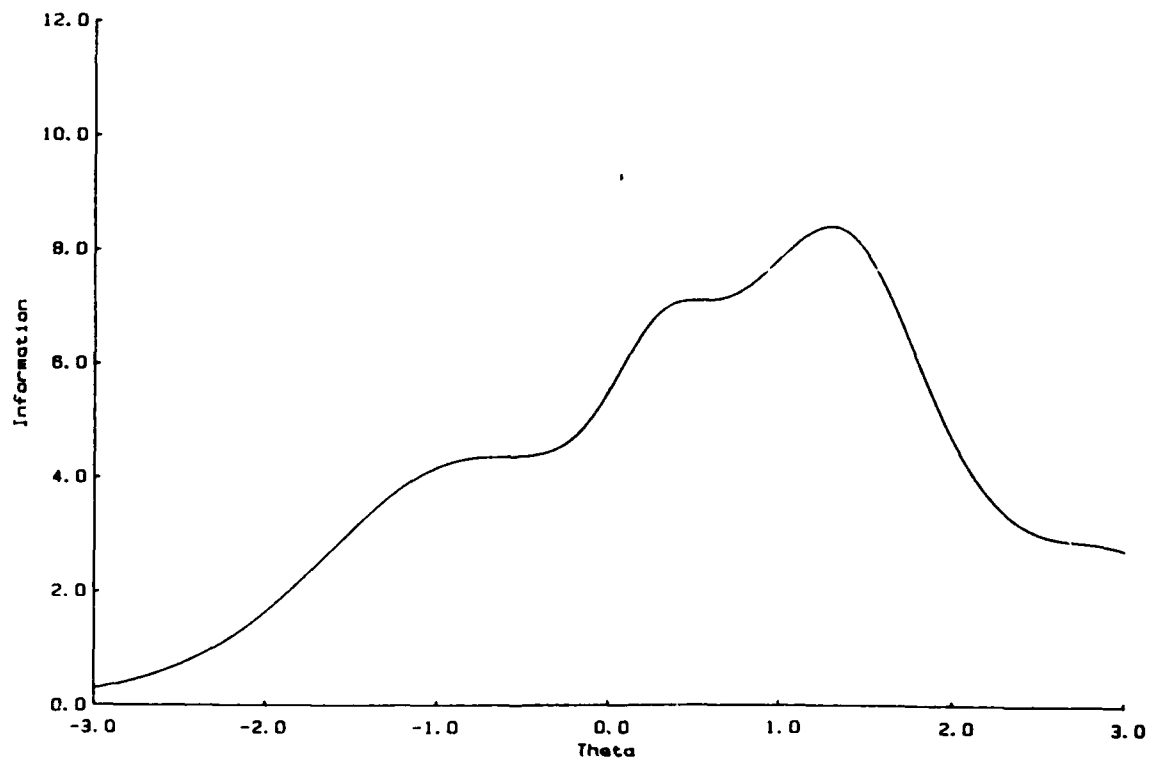


Figure A-156. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 11b (Female Sample).

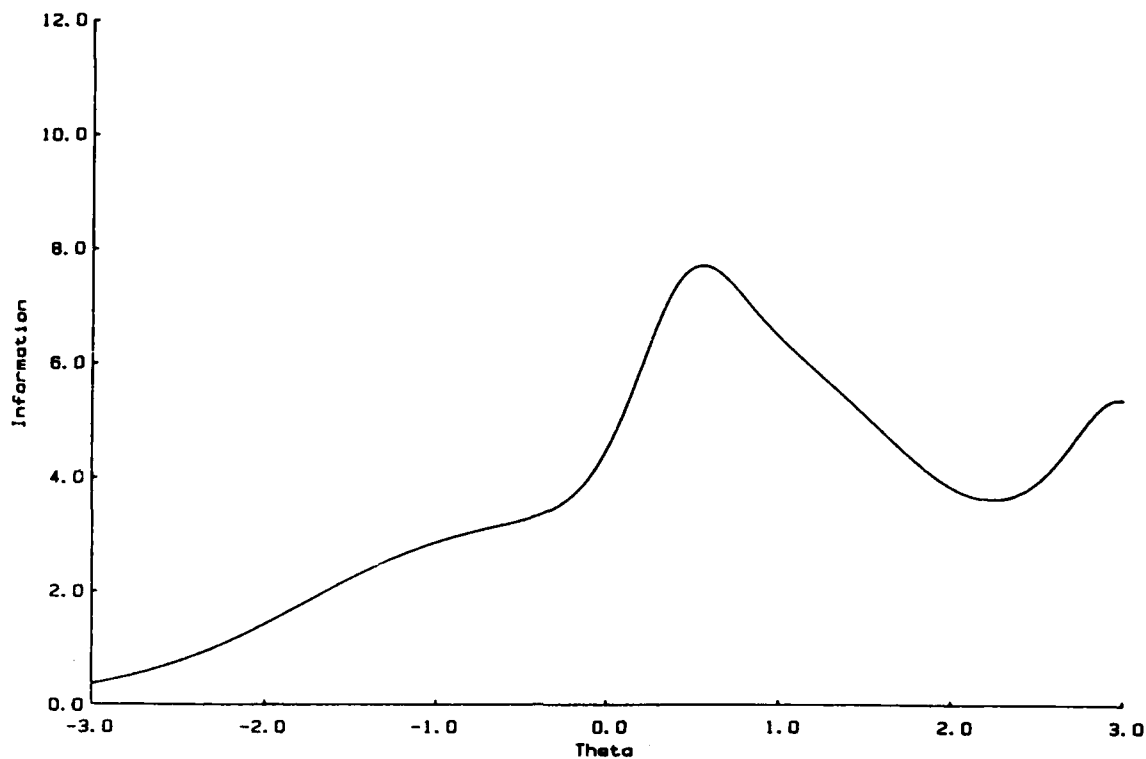


Figure A-157. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 12a (Female Sample).

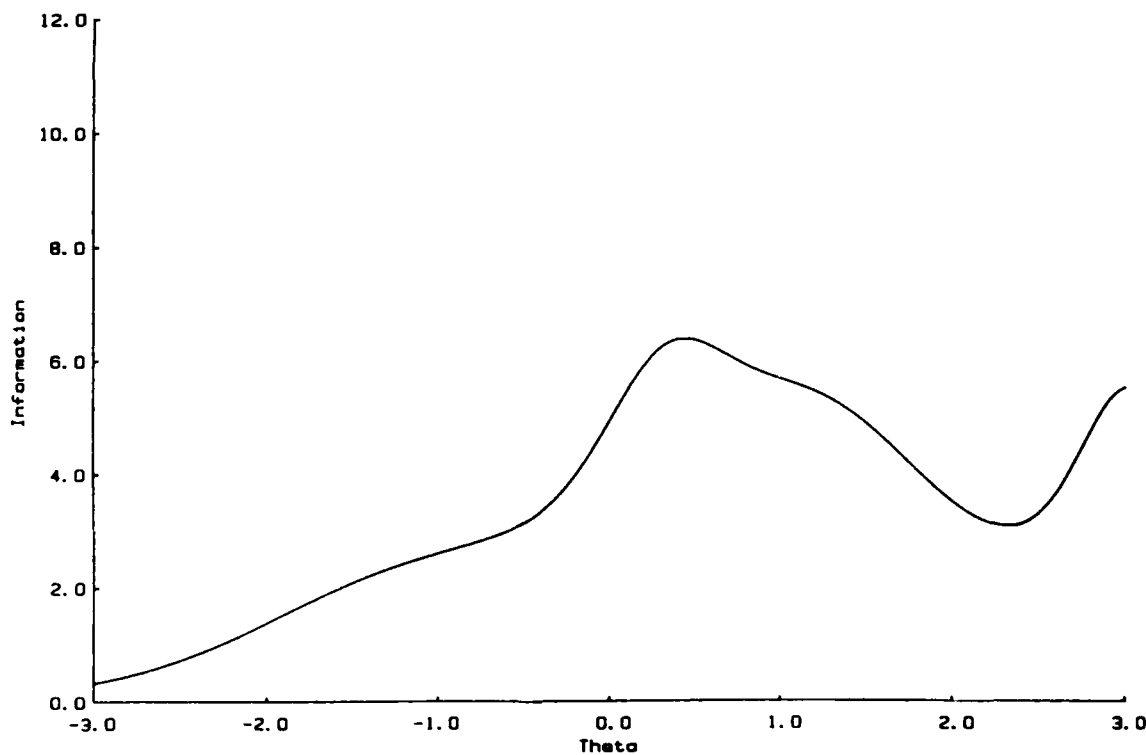


Figure A-158. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 12b (Female Sample).

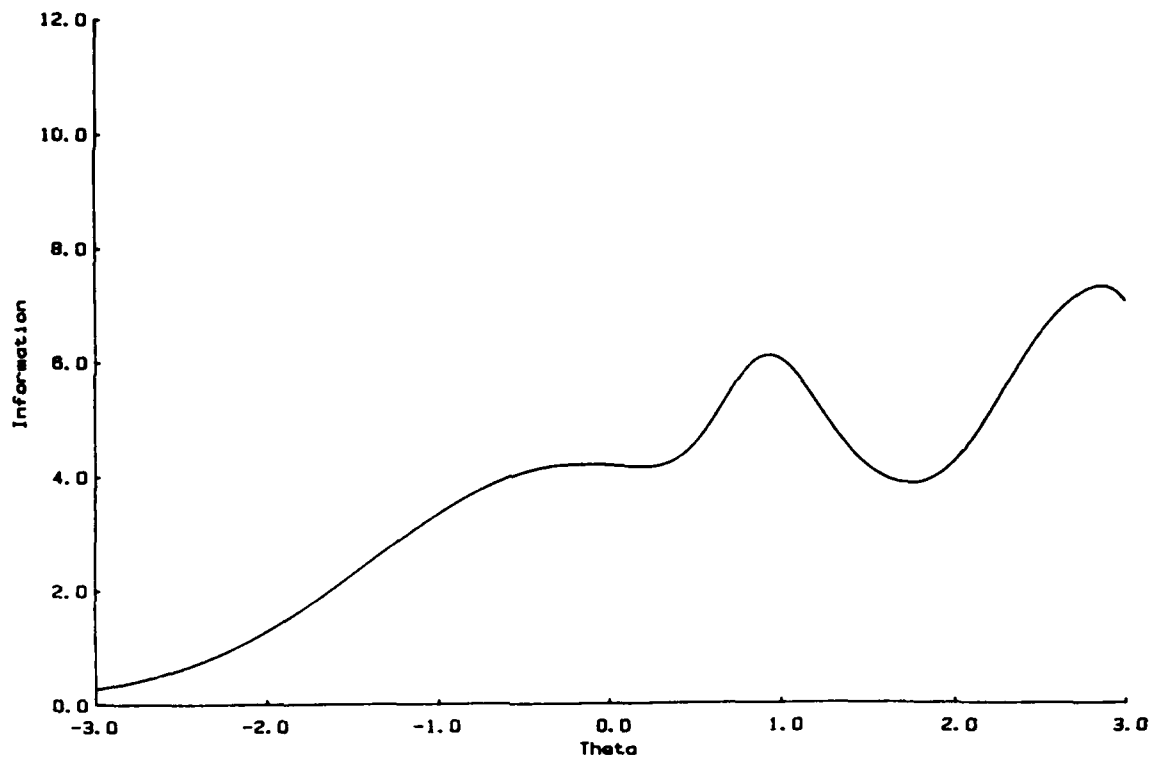


Figure A-159. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 13a (Female Sample).

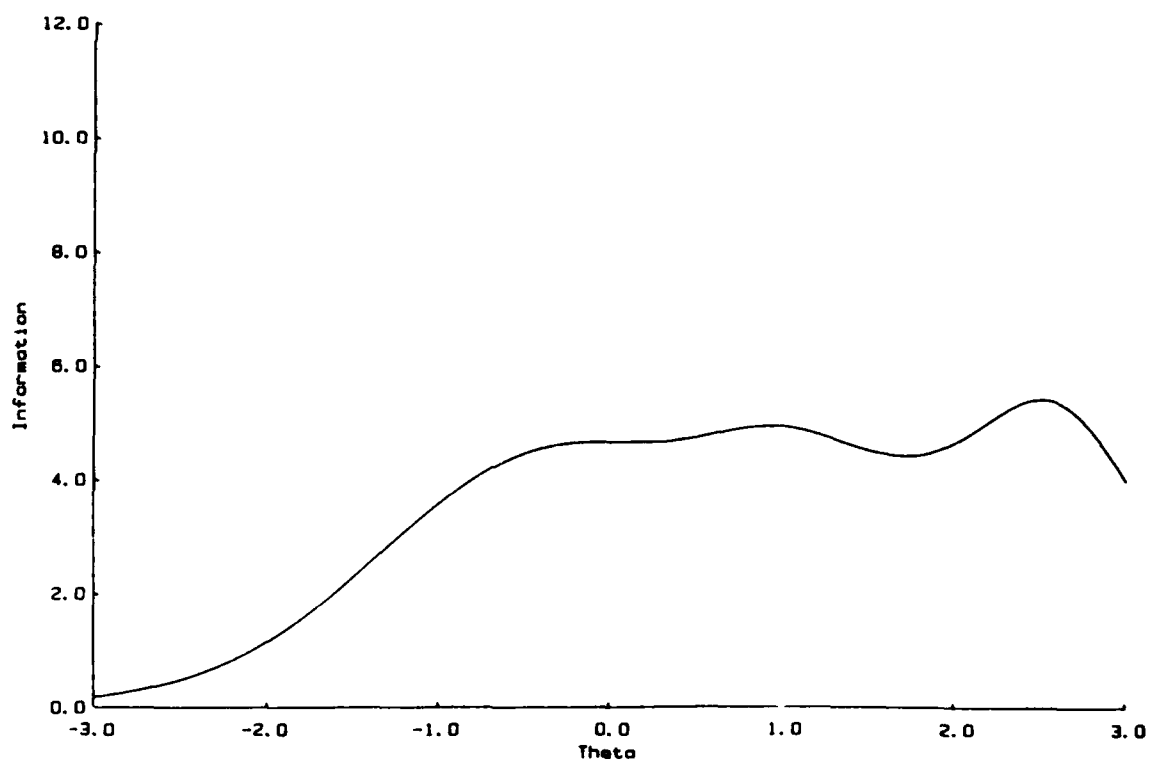


Figure A-160. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 13b (Female Sample).

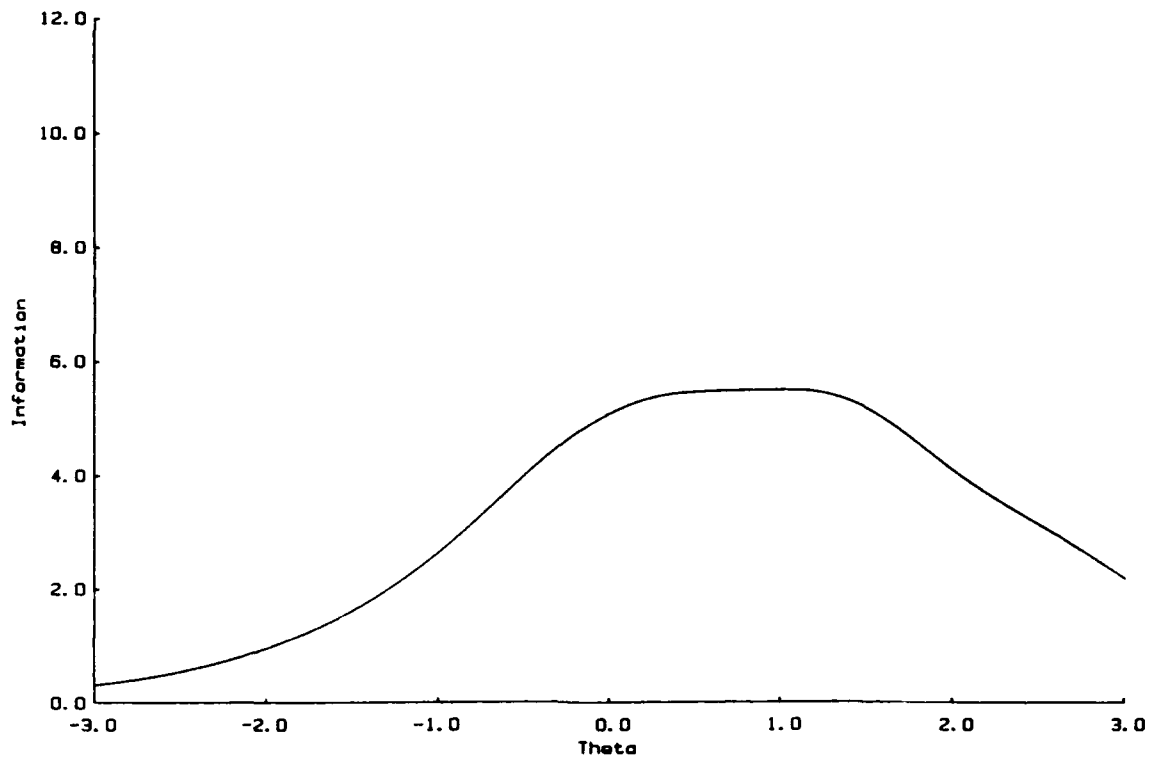


Figure A-161. Test Information Curve for Mechanical Comprehension Subtest on ASVAB Form 13c (Female Sample).

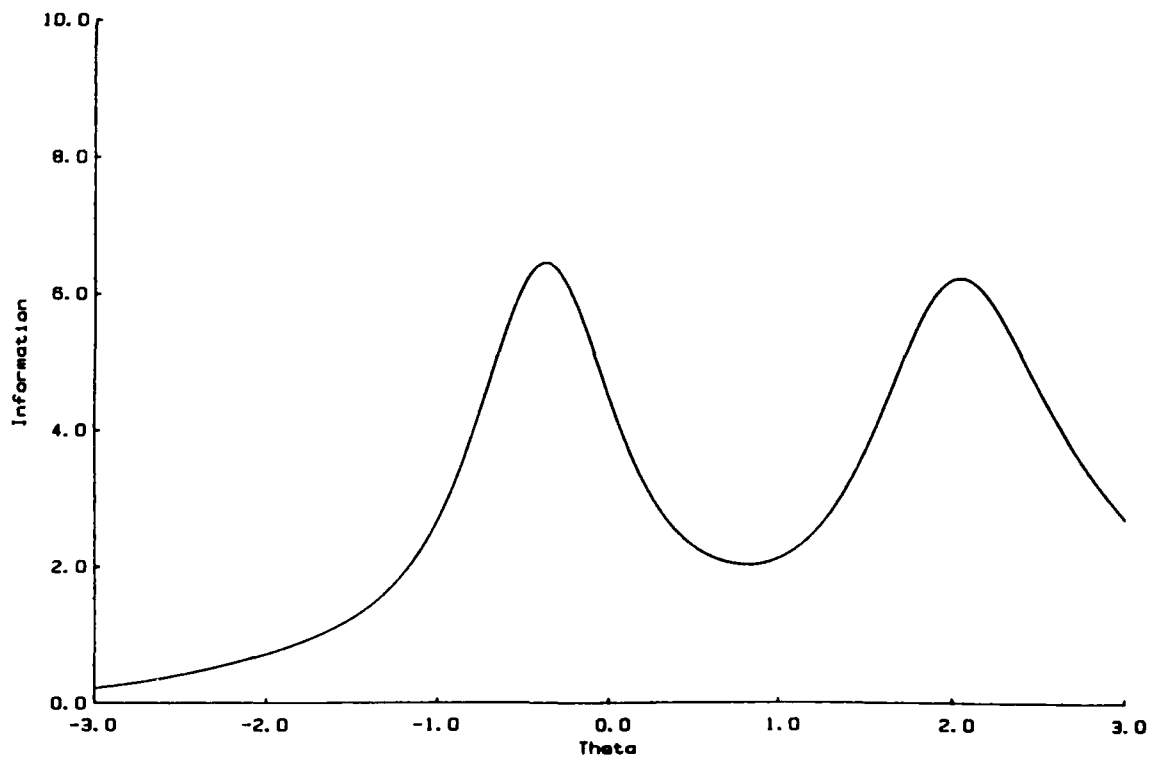


Figure A-162. Test Information Curve for Electronics Information Subtest on ASVAB Form 11a (Female Sample).

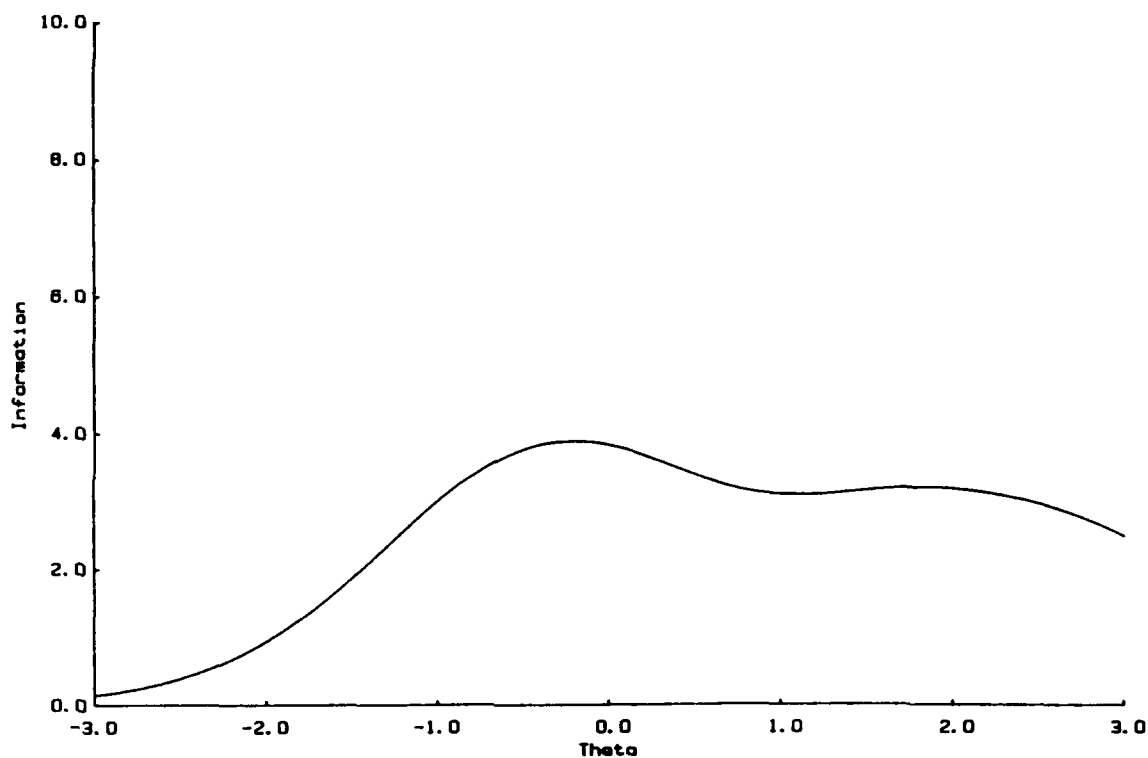


Figure A-163. Test Information Curve for Electronics Information Subtest on ASVAB Form 11b (Female Sample).

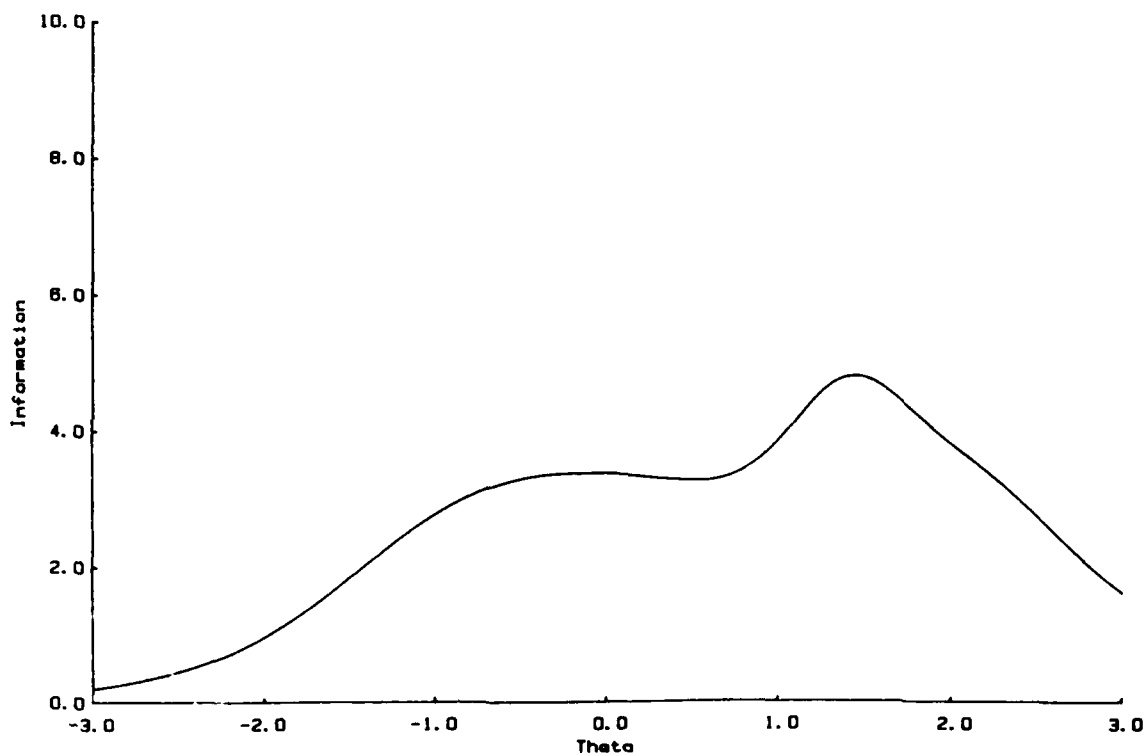


Figure A-164. Test Information Curve for Electronics Information Subtest on ASVAB Form 12a (Female Sample).



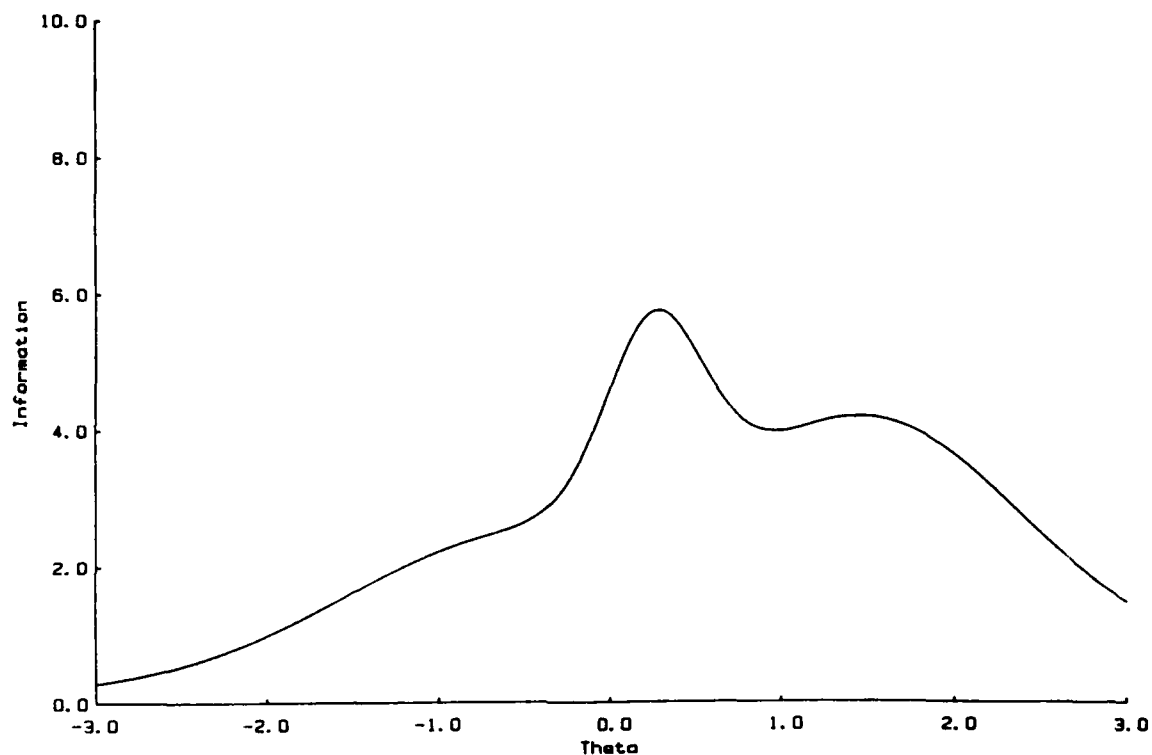


Figure A-165. Test Information Curve for Electronics Information Subtest on ASVAB Form 12b (Female Sample).

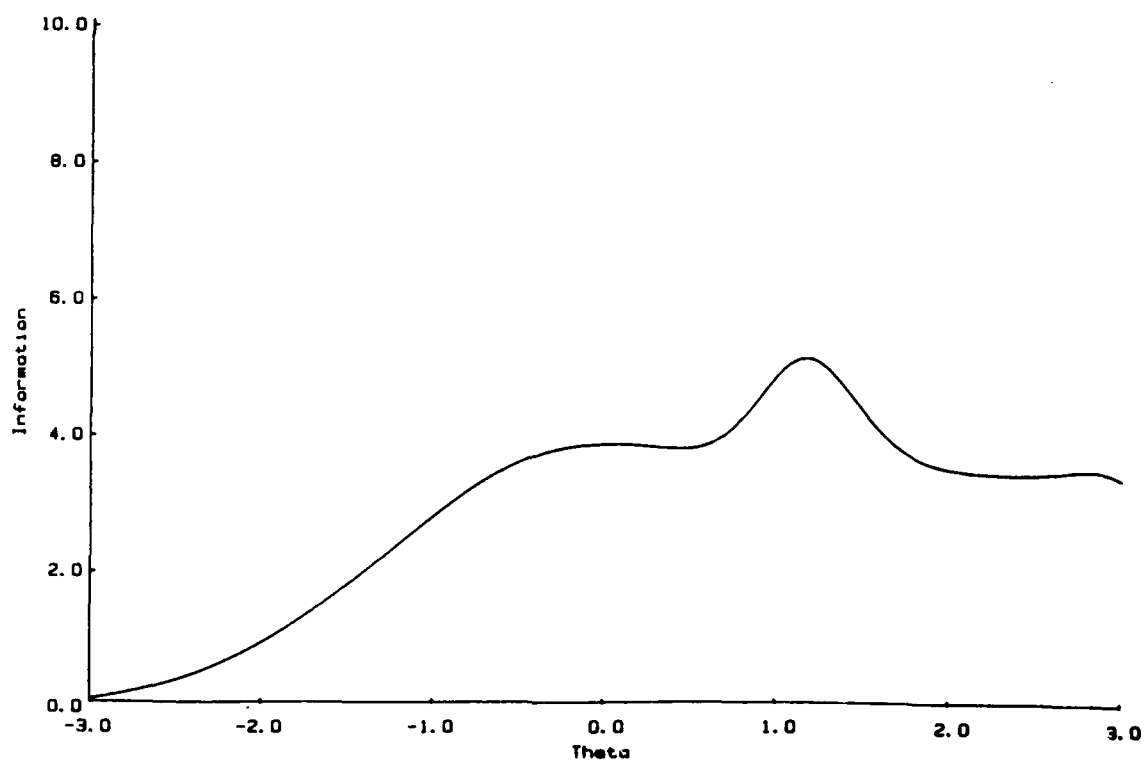


Figure A-166. Test Information Curve for Electronics Information Subtest on ASVAB Form 13a (Female Sample).

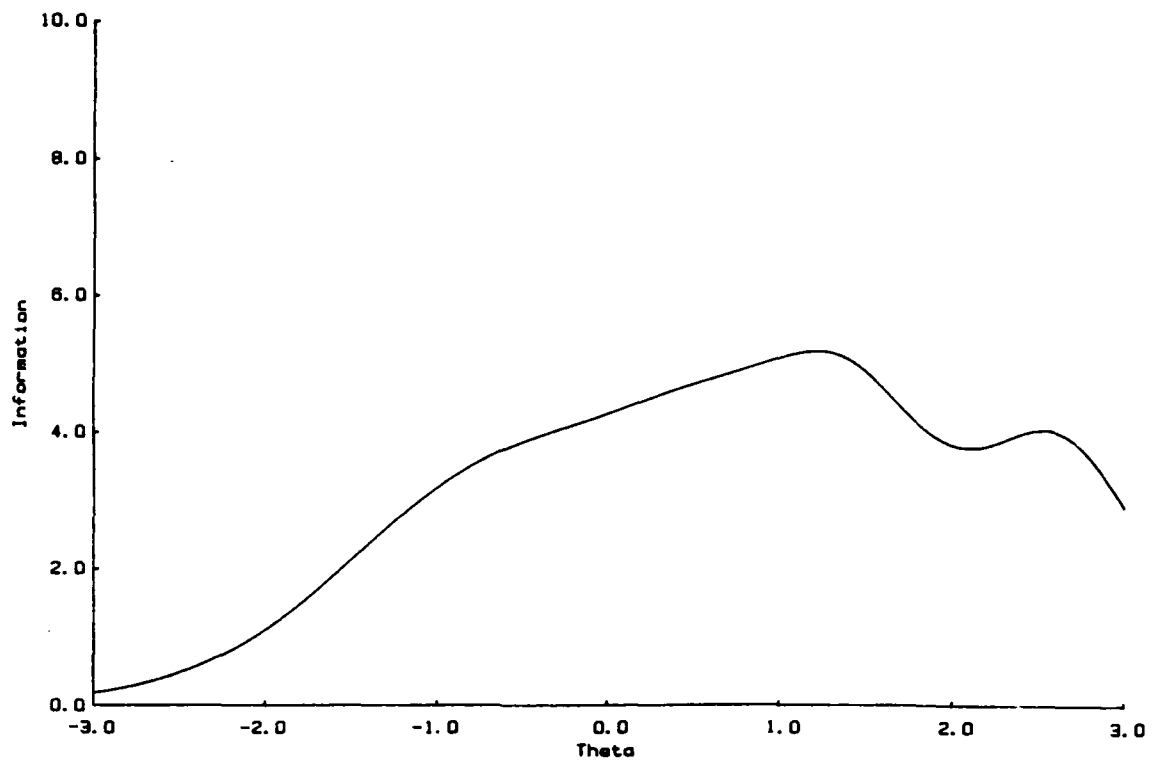


Figure A-187. Test Information Curve for Electronics Information Subtest on ASVAB Form 13b (Female Sample).

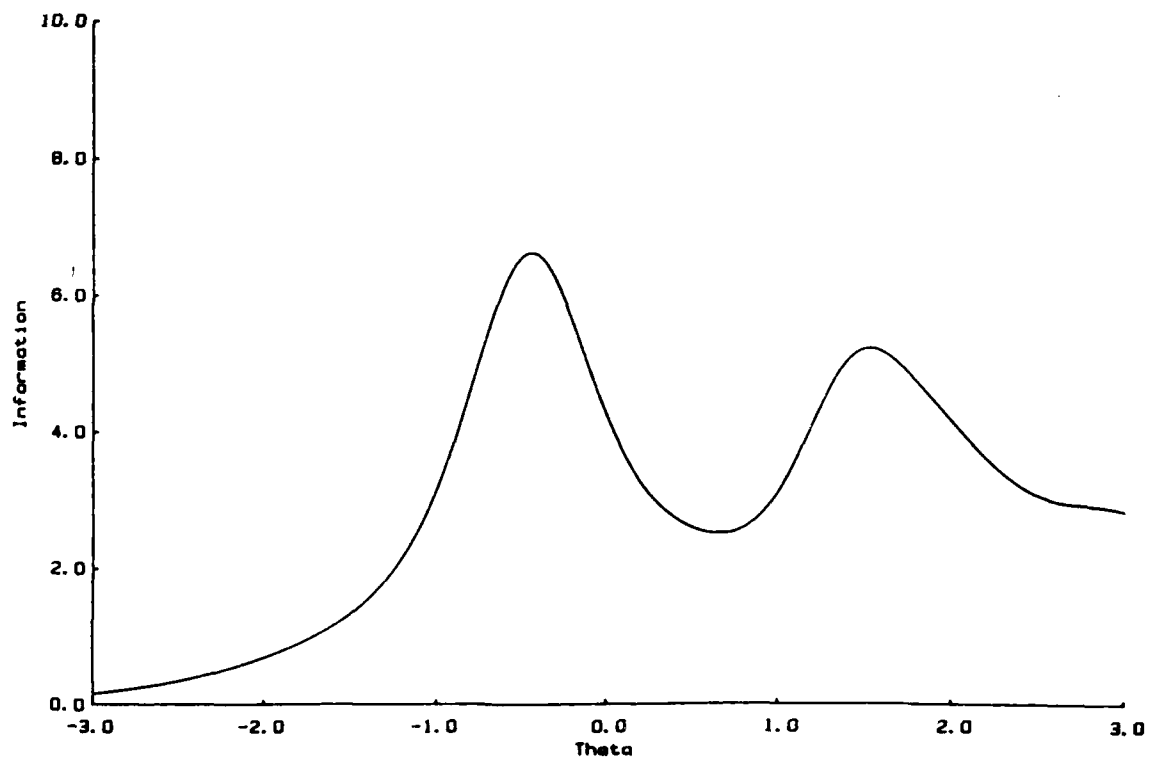


Figure A-188. Test Information Curve for Electronics Information Subtest on ASVAB Form 13c (Female Sample).

APPENDIX B: TEST CHARACTERISTIC CURVES

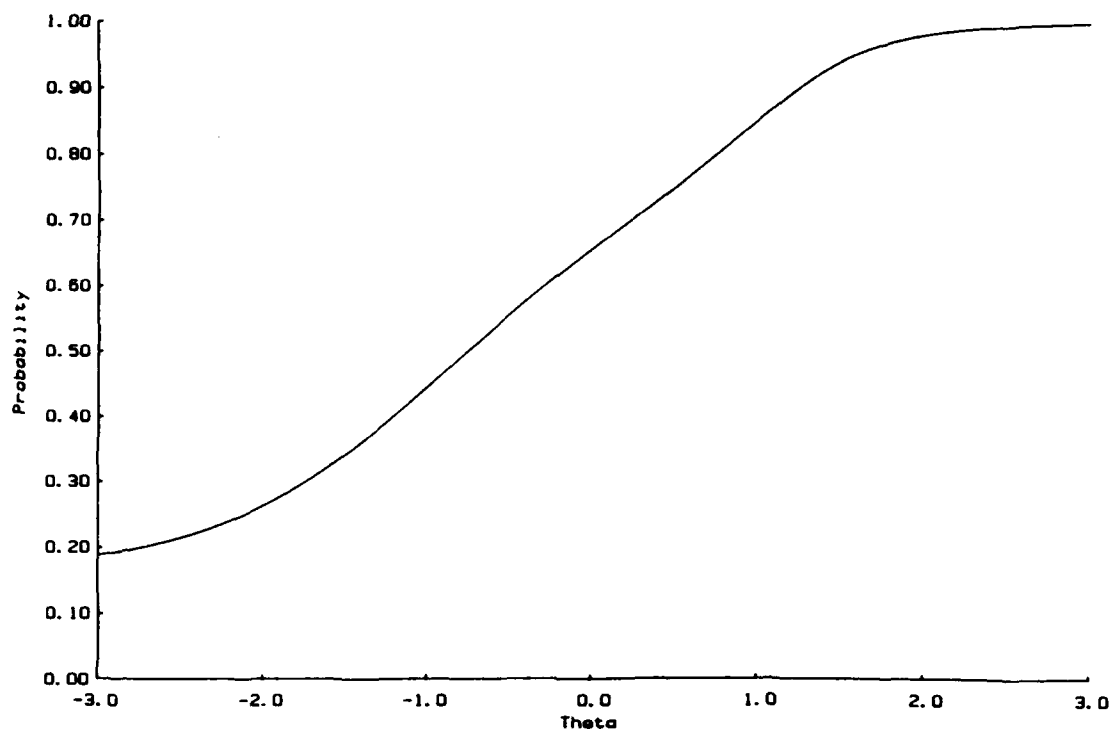


Figure B-1. Test Characteristic Curve for General Science Subtest on ASVAB Form 11a (Total Sample).

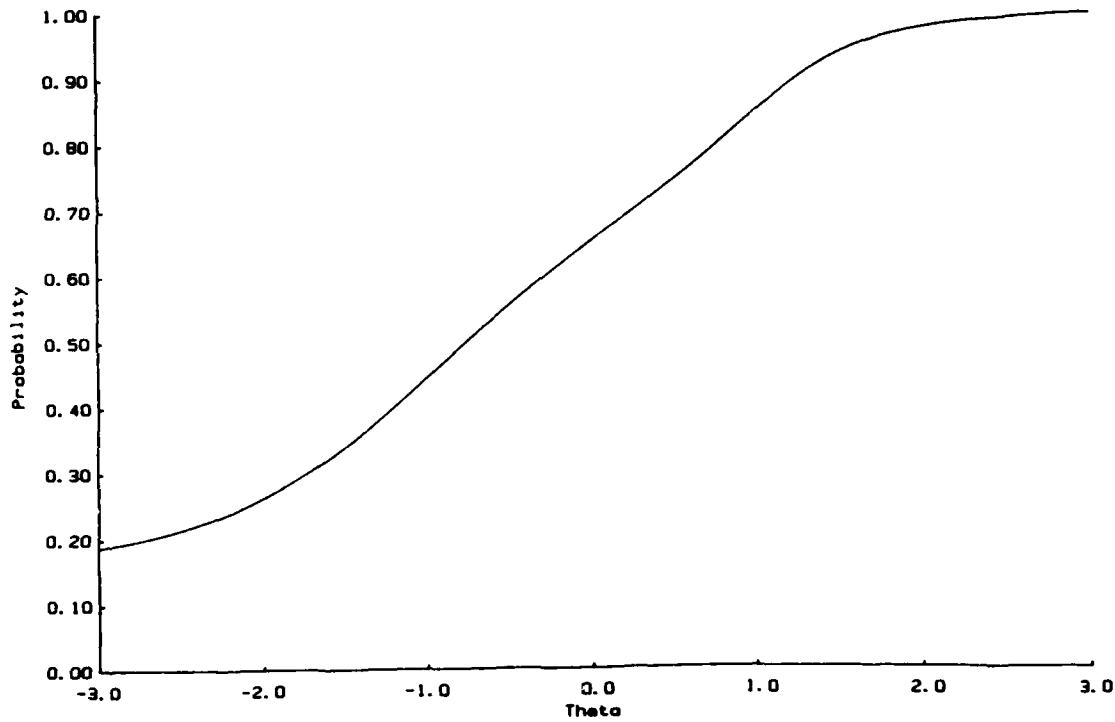


Figure B-2. Test Characteristic Curve for General Science Subtest on ASVAB Form 11b (Total Sample).

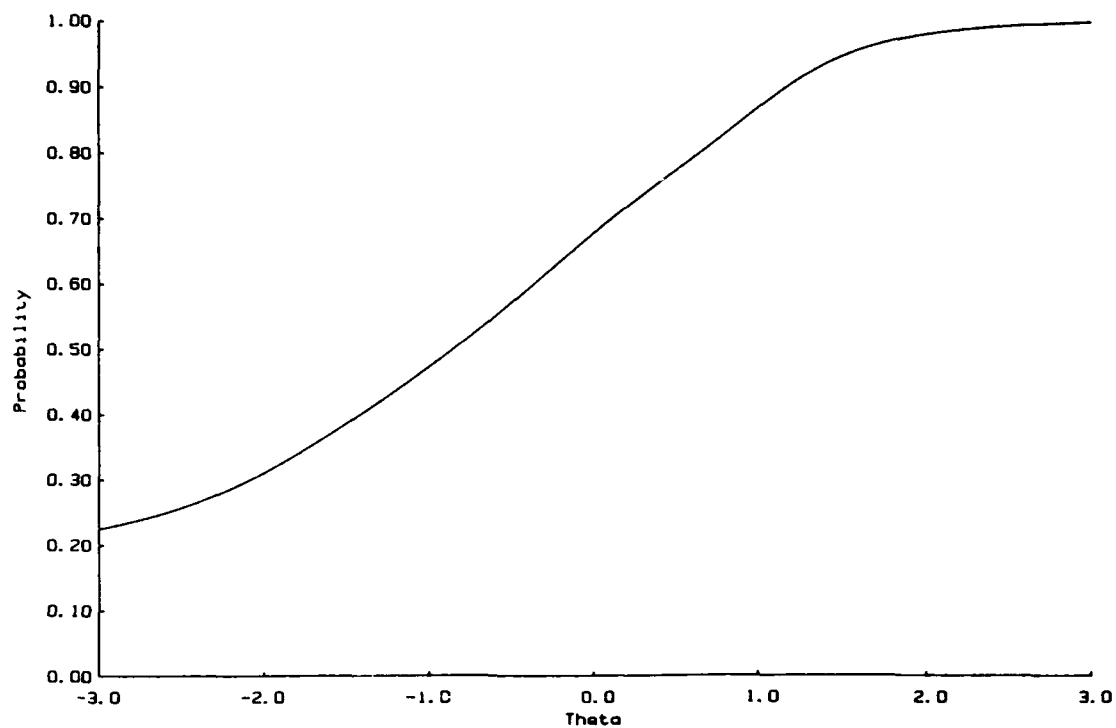


Figure 8-3. Test Characteristic Curve for General Science Subtest on ASVAB Form 12a (Total Sample).

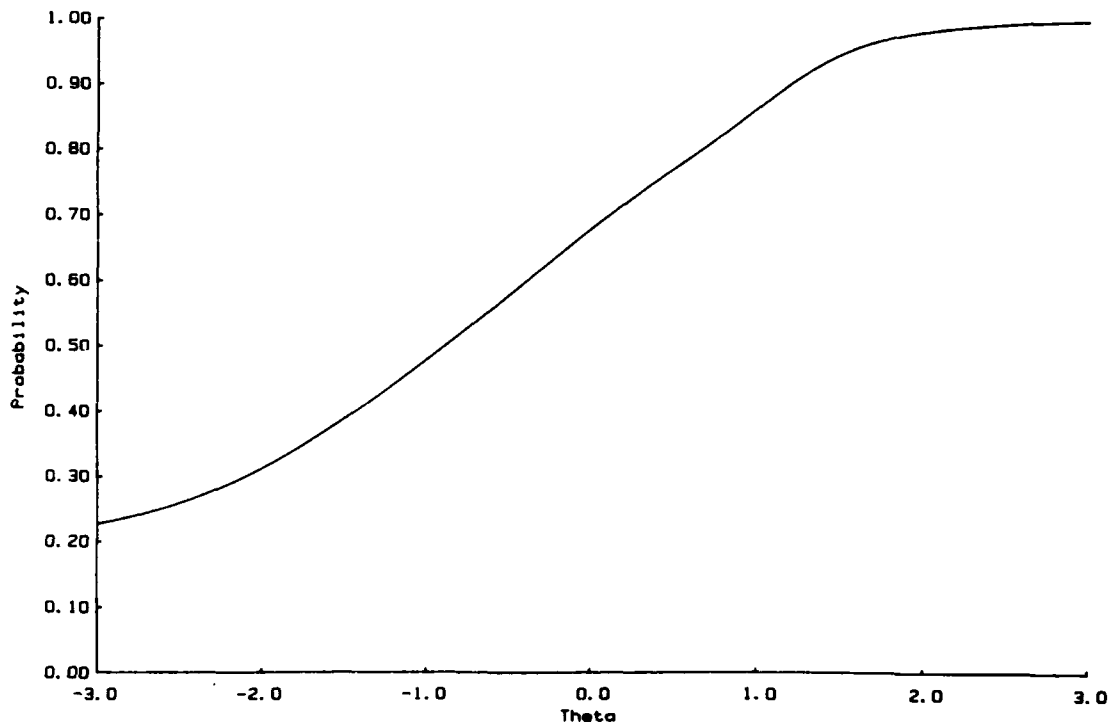


Figure 8-4. Test Characteristic Curve for General Science Subtest on ASVAB Form 12b (Total Sample).

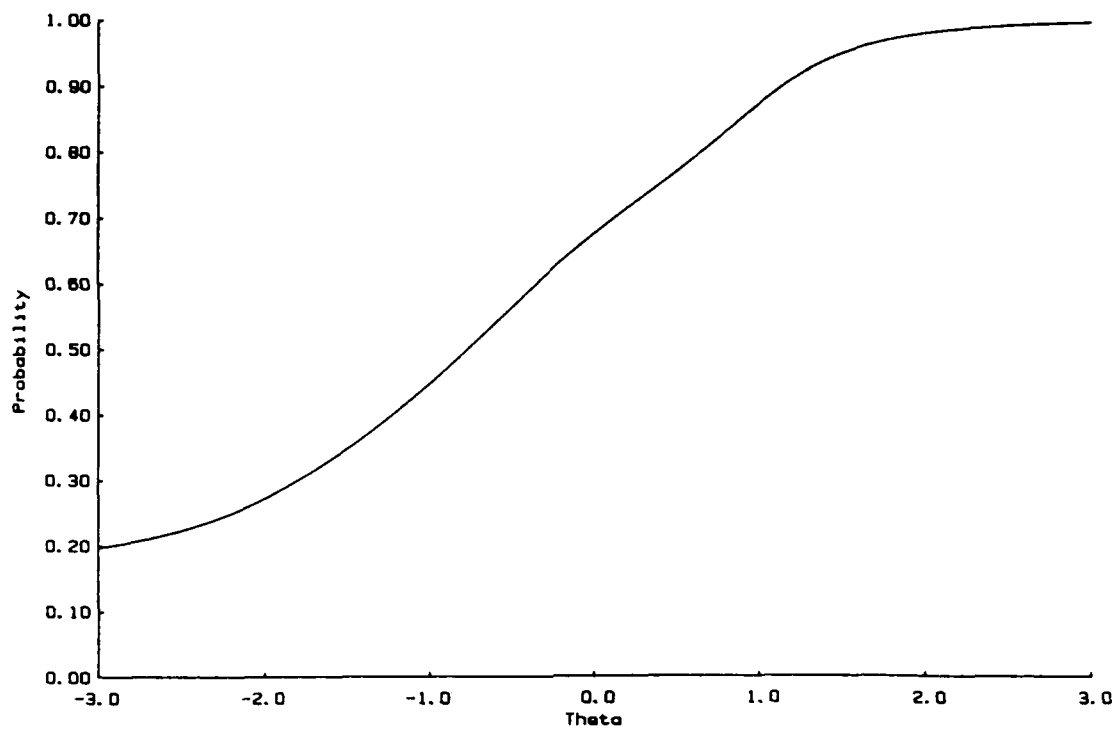


Figure 8-5. Test Characteristic Curve for General Science Subtest on ASVAB Form 13a (Total Sample).

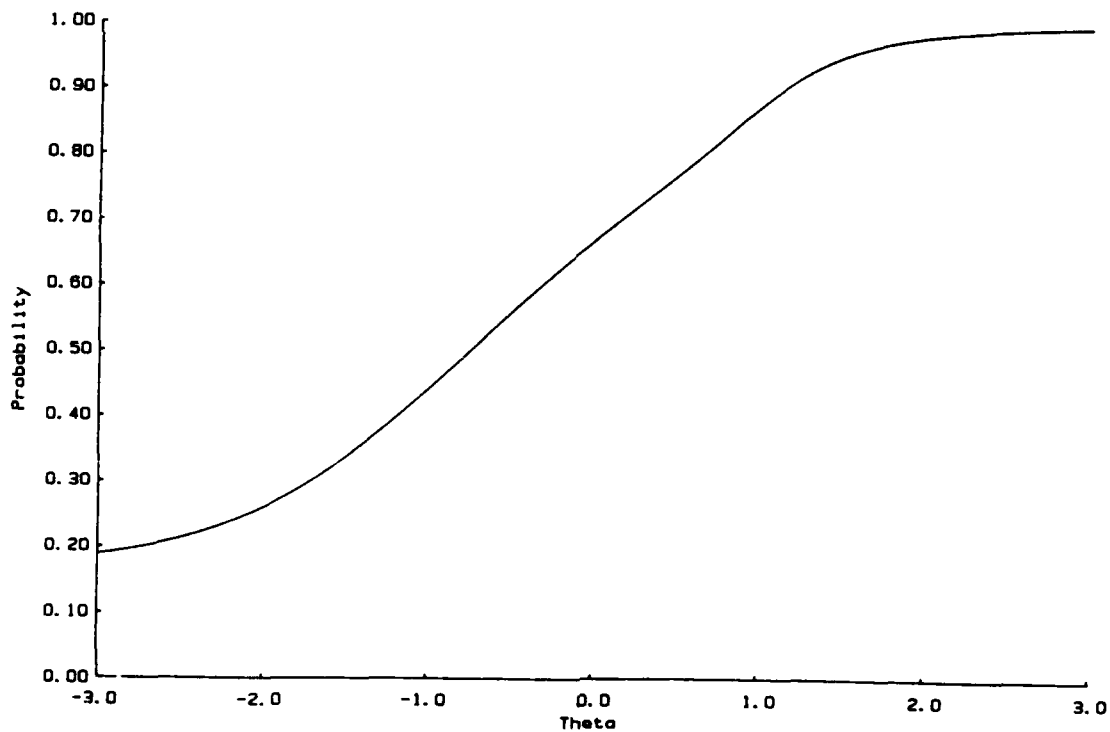


Figure 8-6. Test Characteristic Curve for General Science Subtest on ASVAB Form 13b (Total Sample).

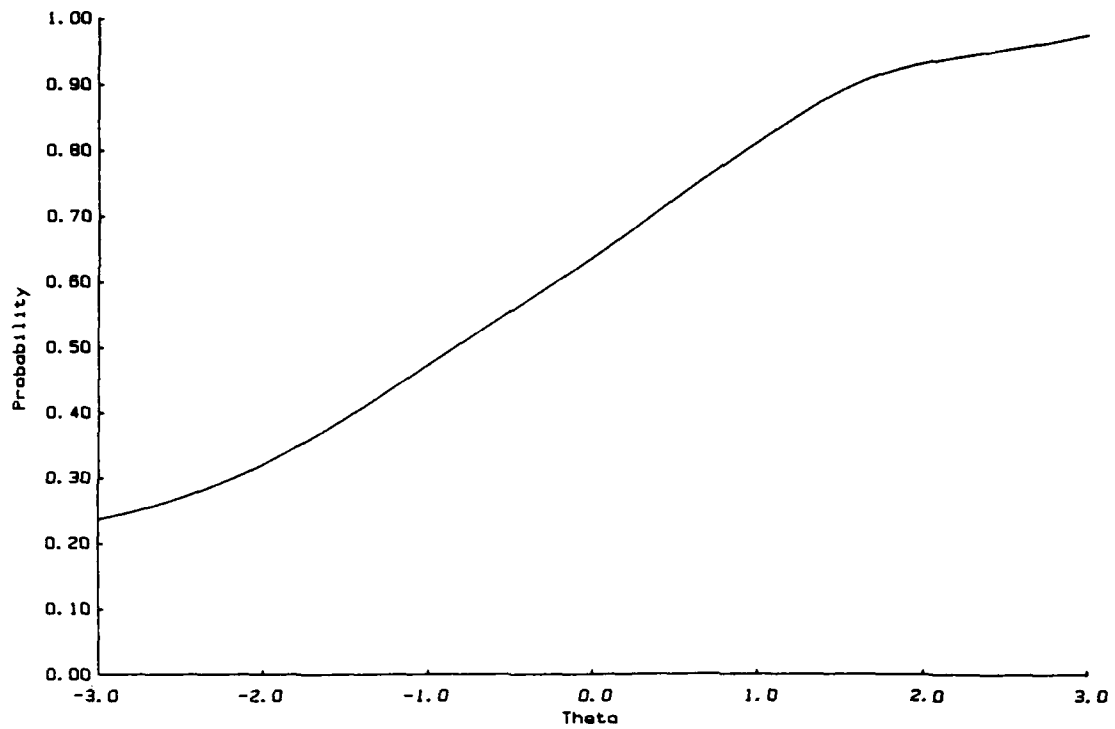


Figure B-7. Test Characteristic Curve for General Science Subtest on ASVAB Form 13c (Total Sample).

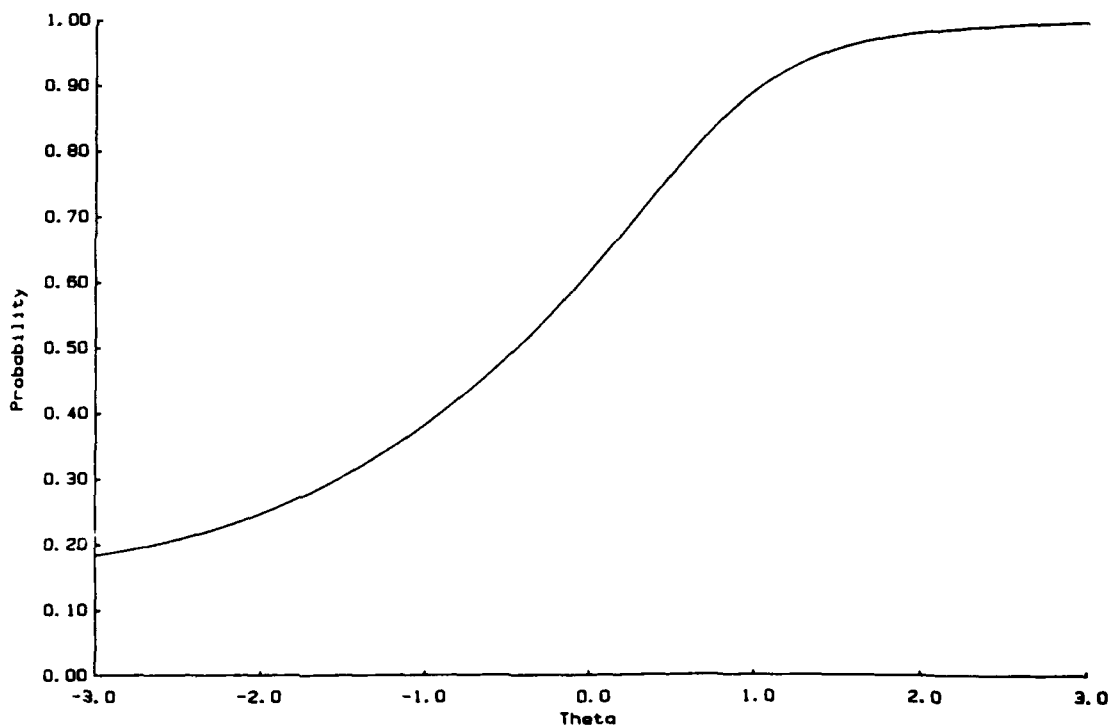


Figure B-8. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 11a (Total Sample).

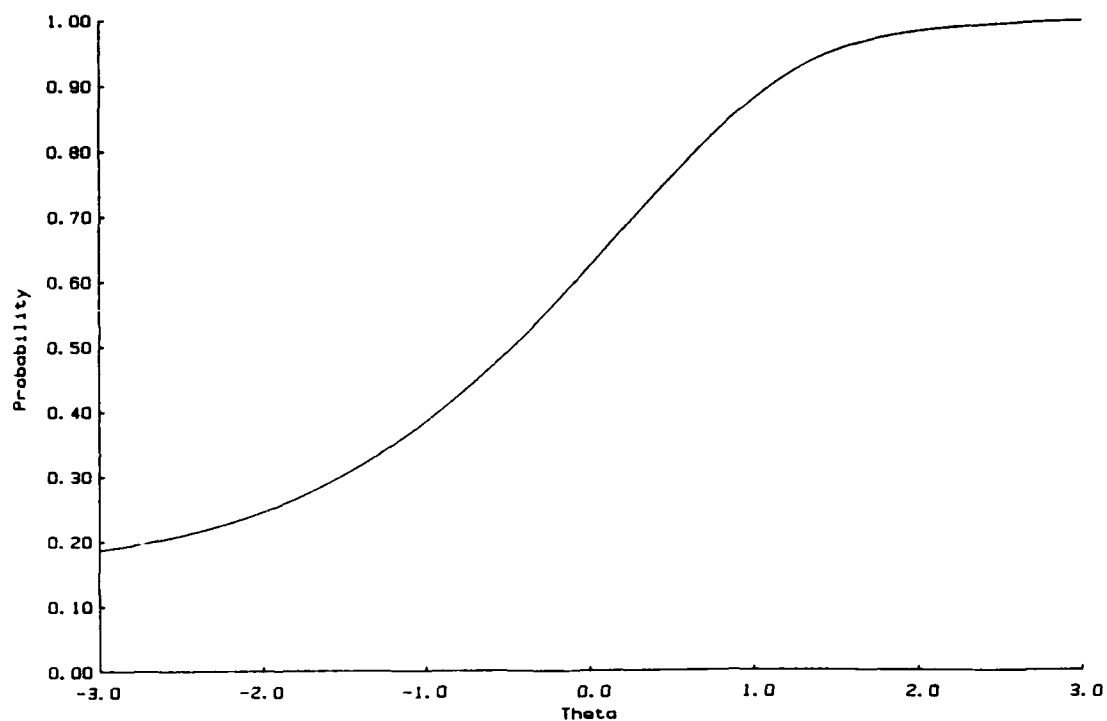


Figure 8-9. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 11b (Total Sample).

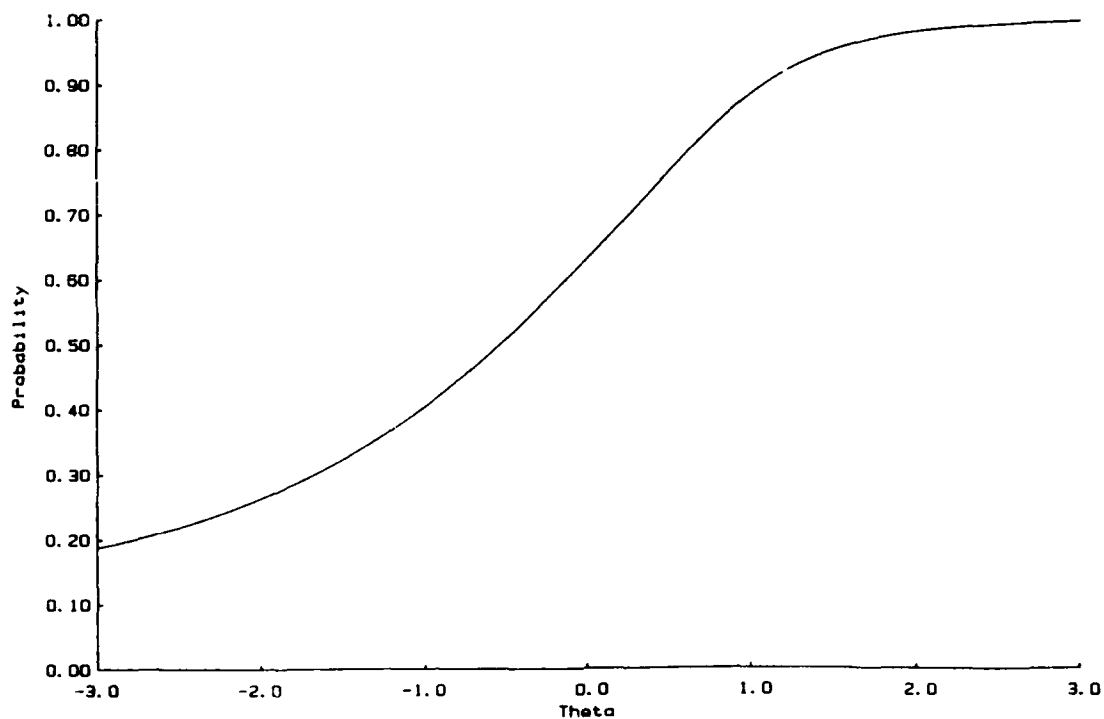


Figure 8-10. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 12a (Total Sample).



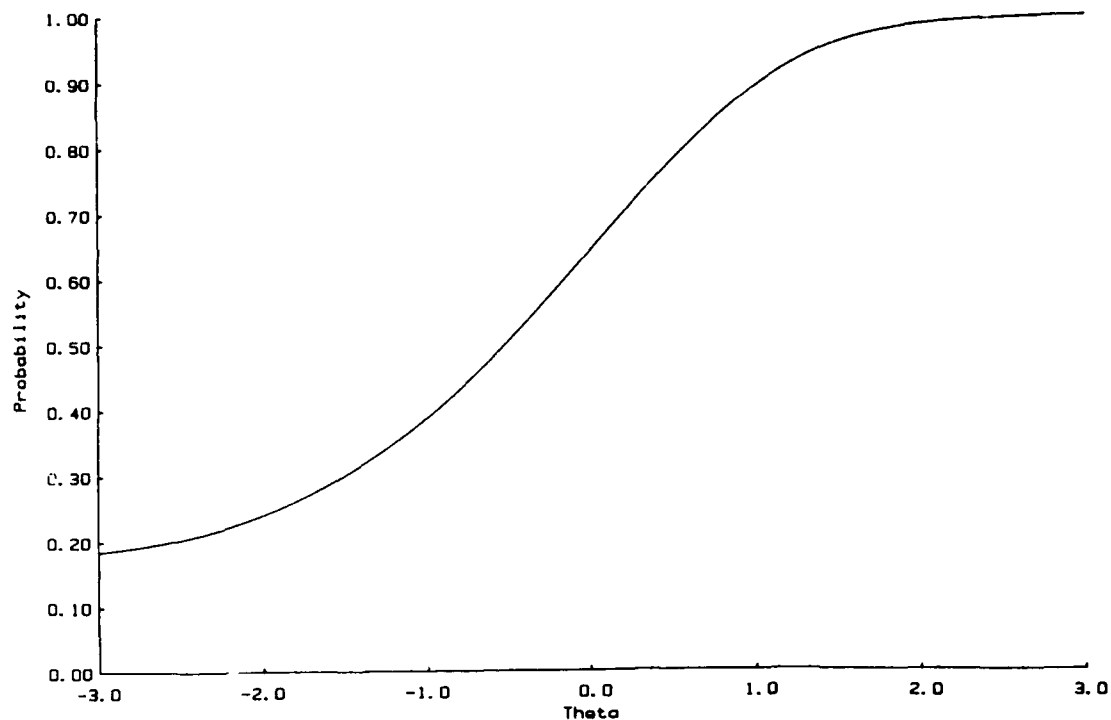


Figure 8-11. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 12b (Total Sample).

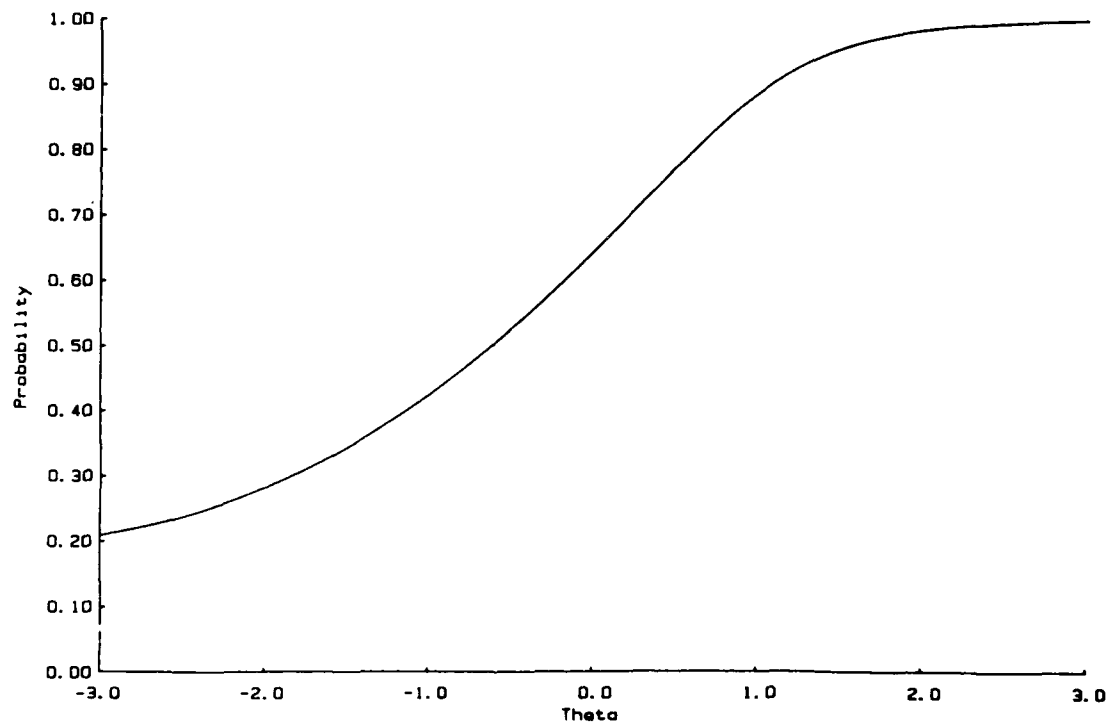


Figure 8-12. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13a (Total Sample).

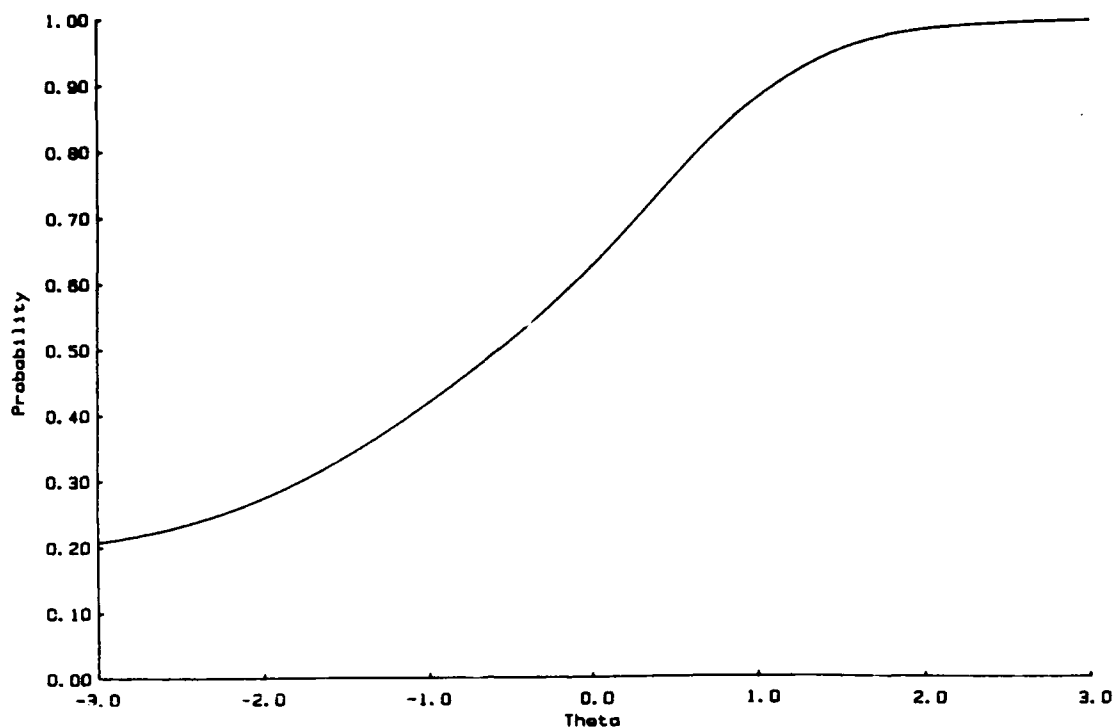


Figure 8-13. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13b (Total Sample).

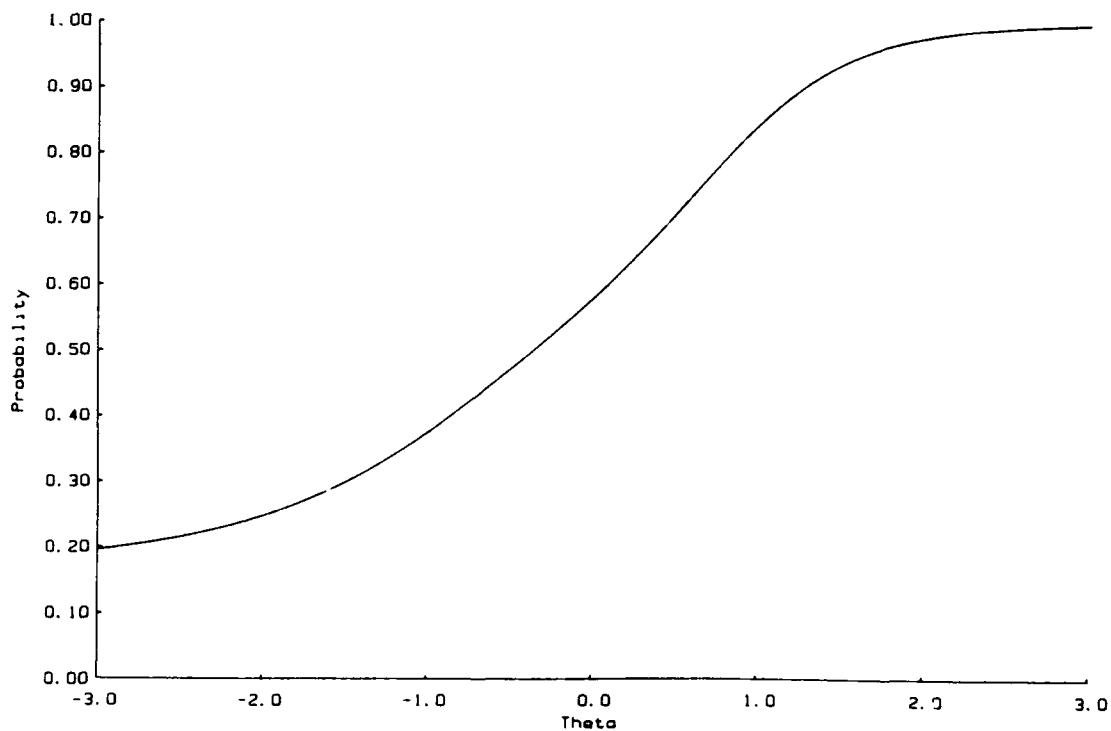


Figure 8-14. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13c (Total Sample).

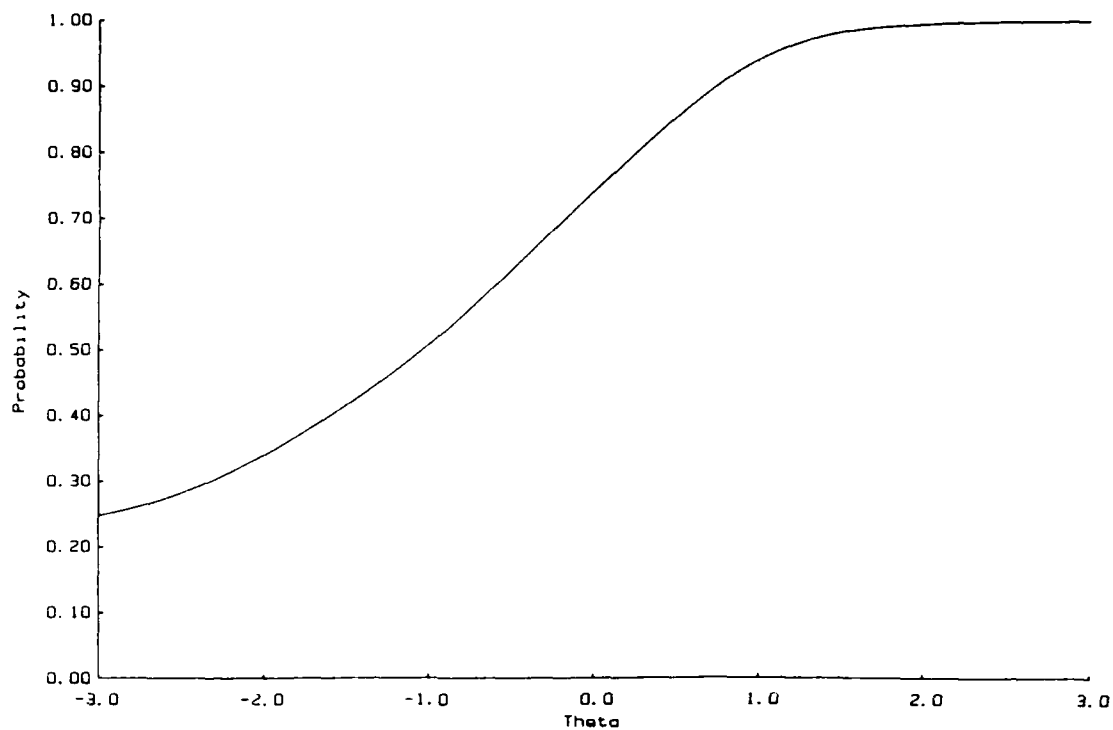


Figure 8-15. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 11a (Total Sample).

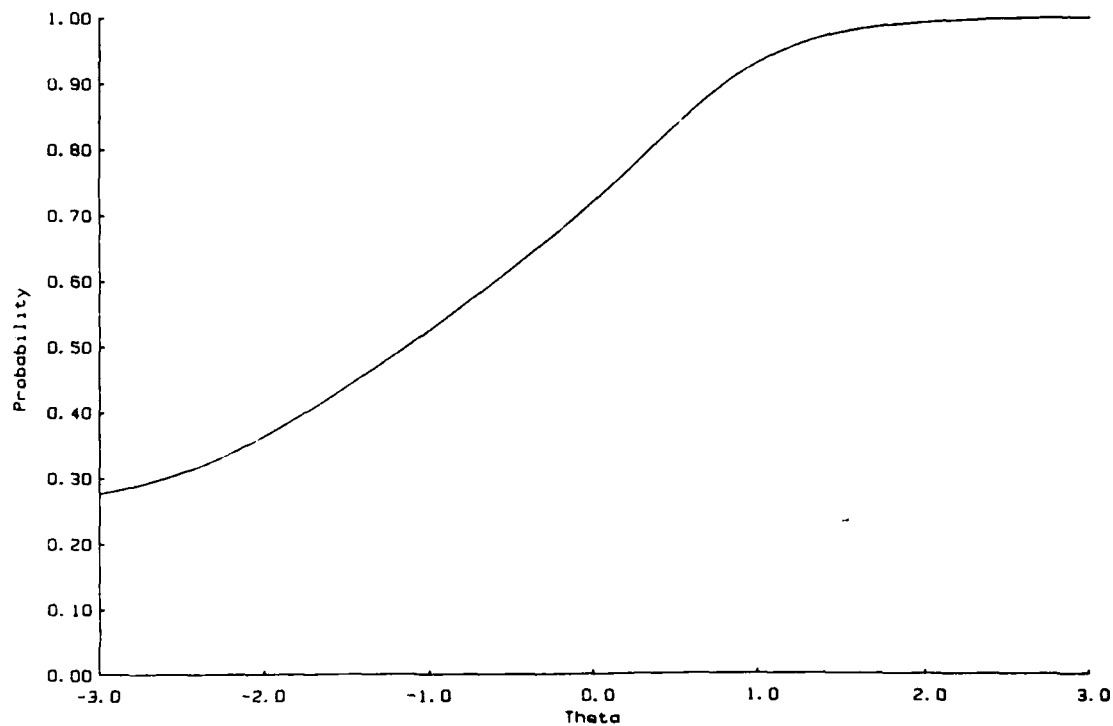


Figure 8-16. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 11b (Total Sample).

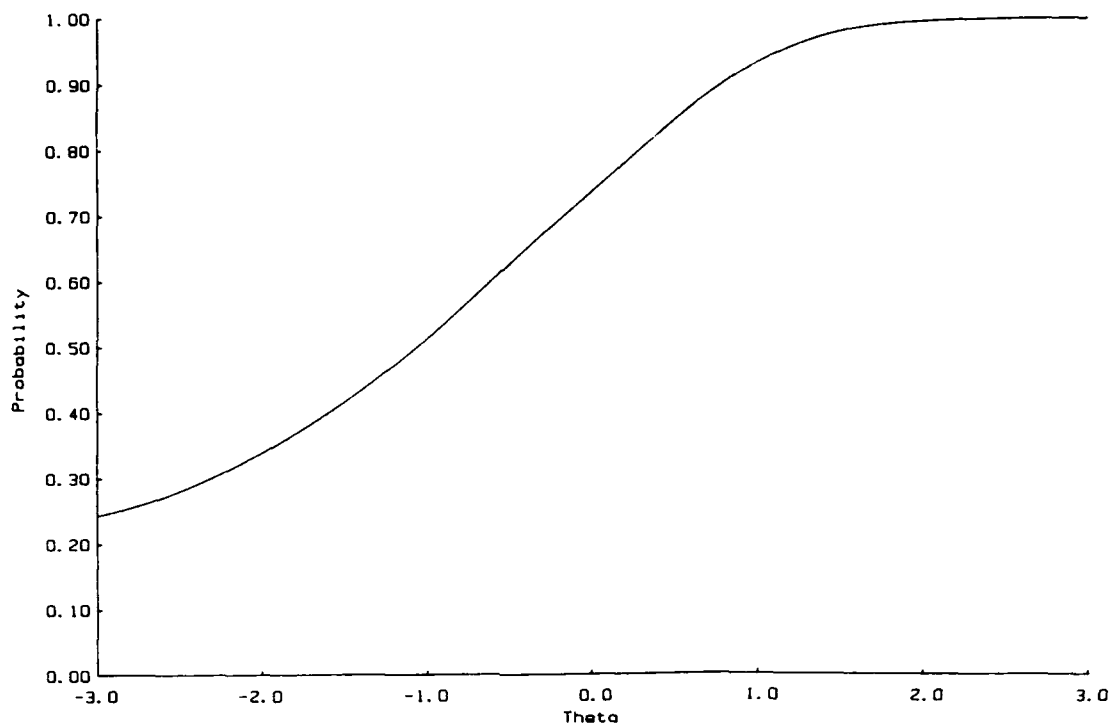


Figure 8-17. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 12a (Total Sample).

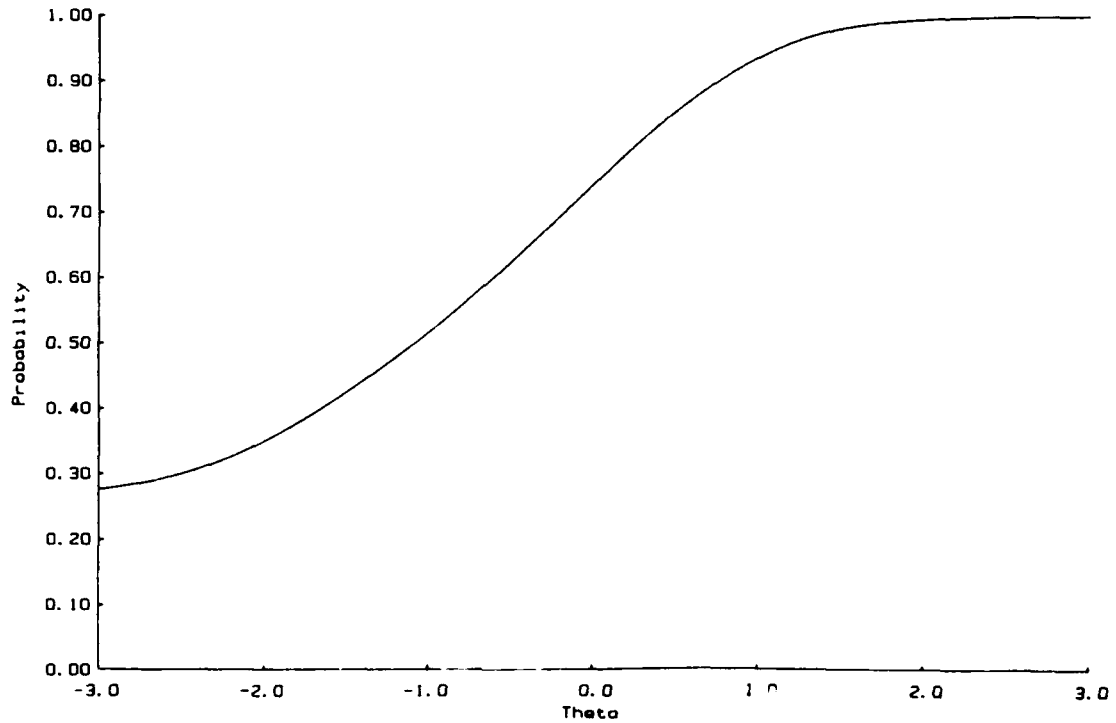


Figure 8-18. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 12b (Total Sample).

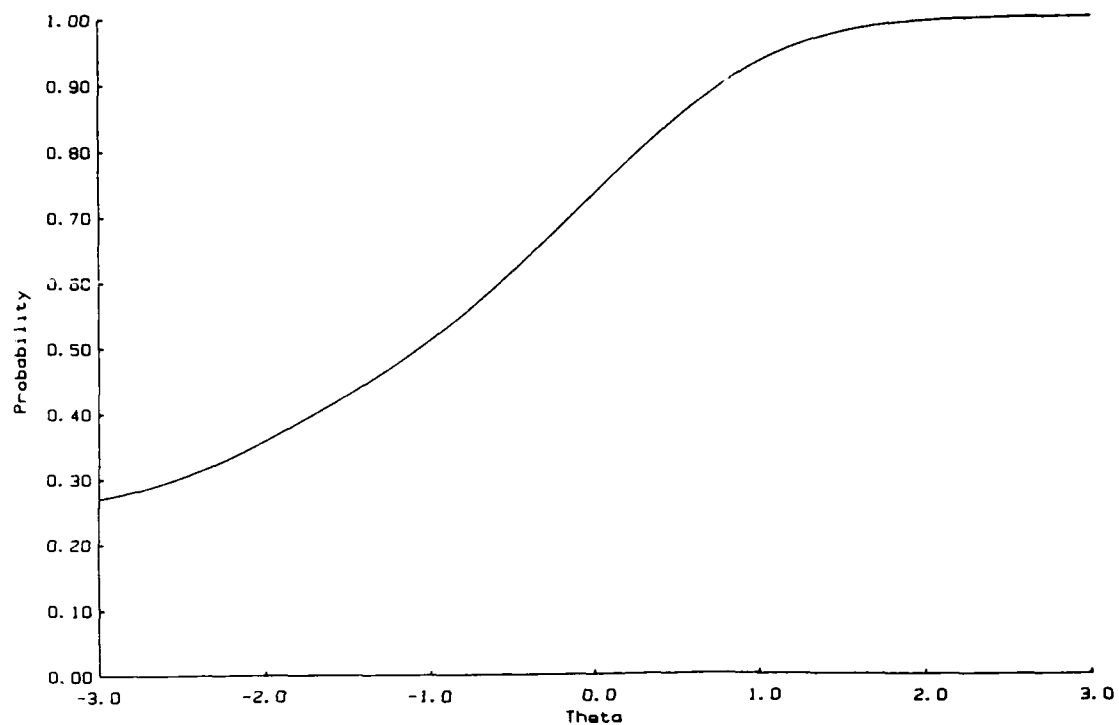


Figure B-19. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13a (Total Sample).

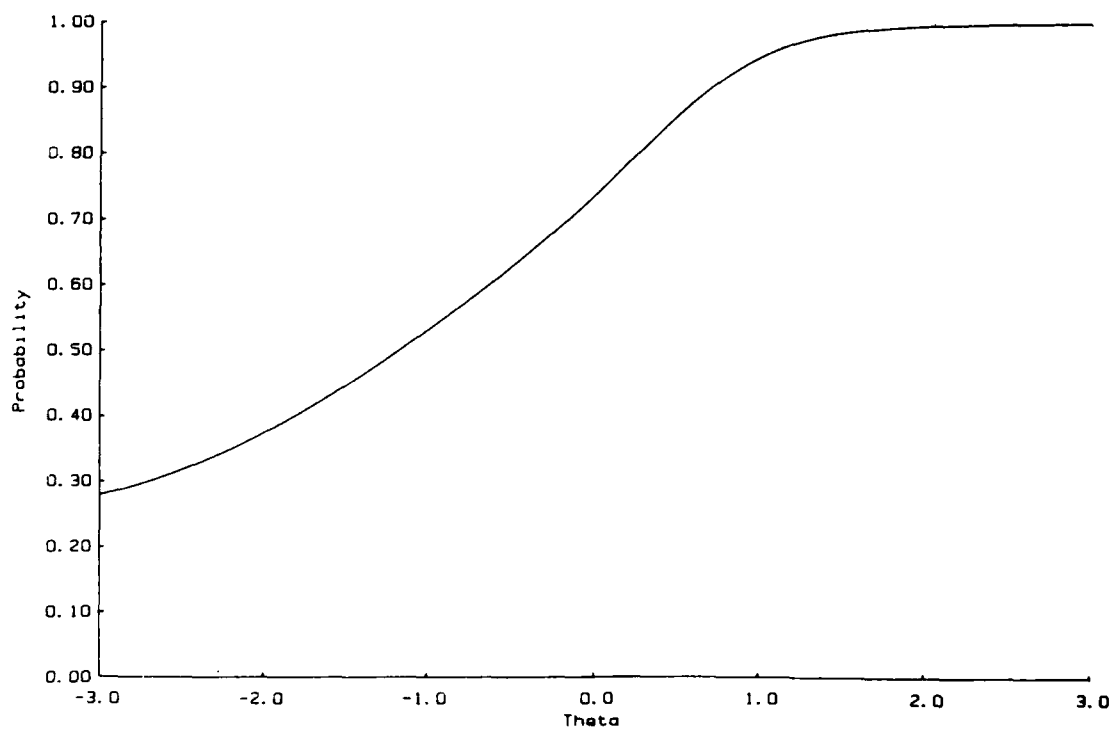


Figure B-20. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13b (Total Sample).

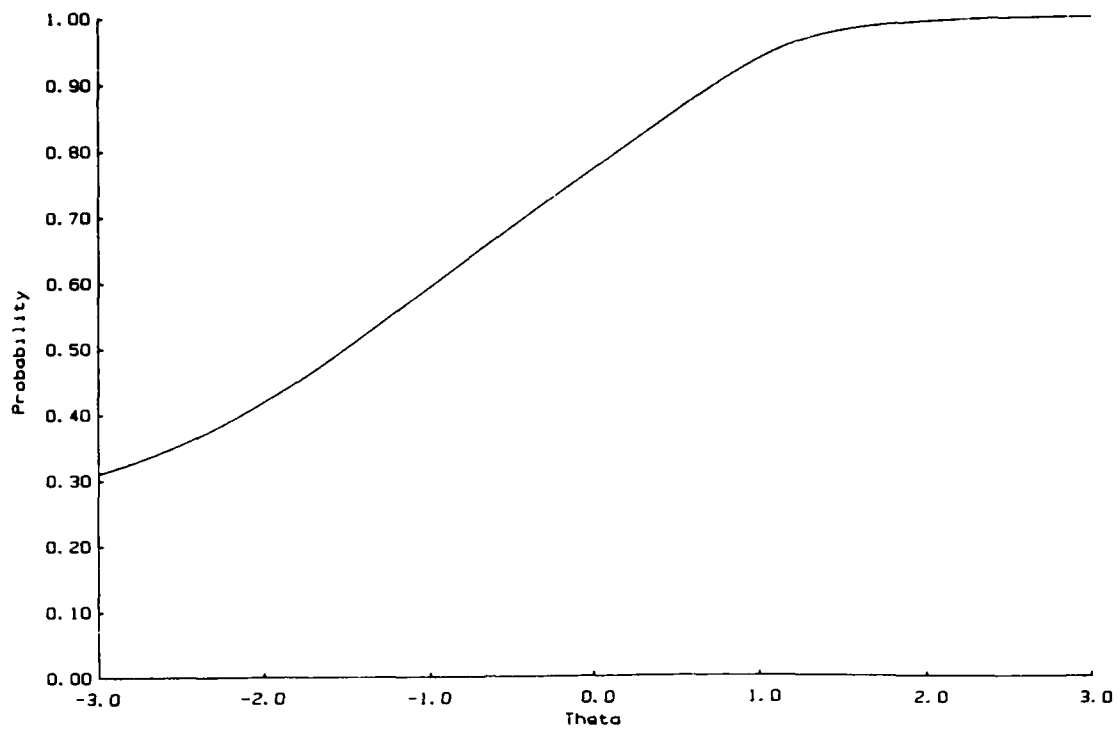


Figure 8-21. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13c (Total Sample).

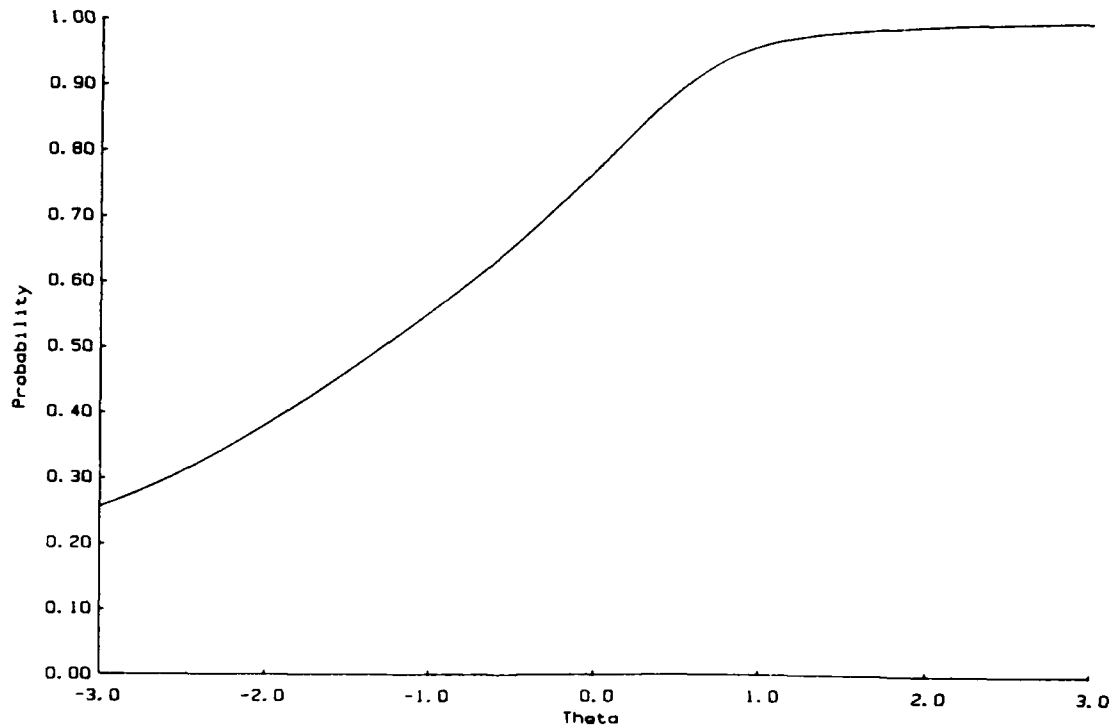


Figure 8-22. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 11a (Total Sample).

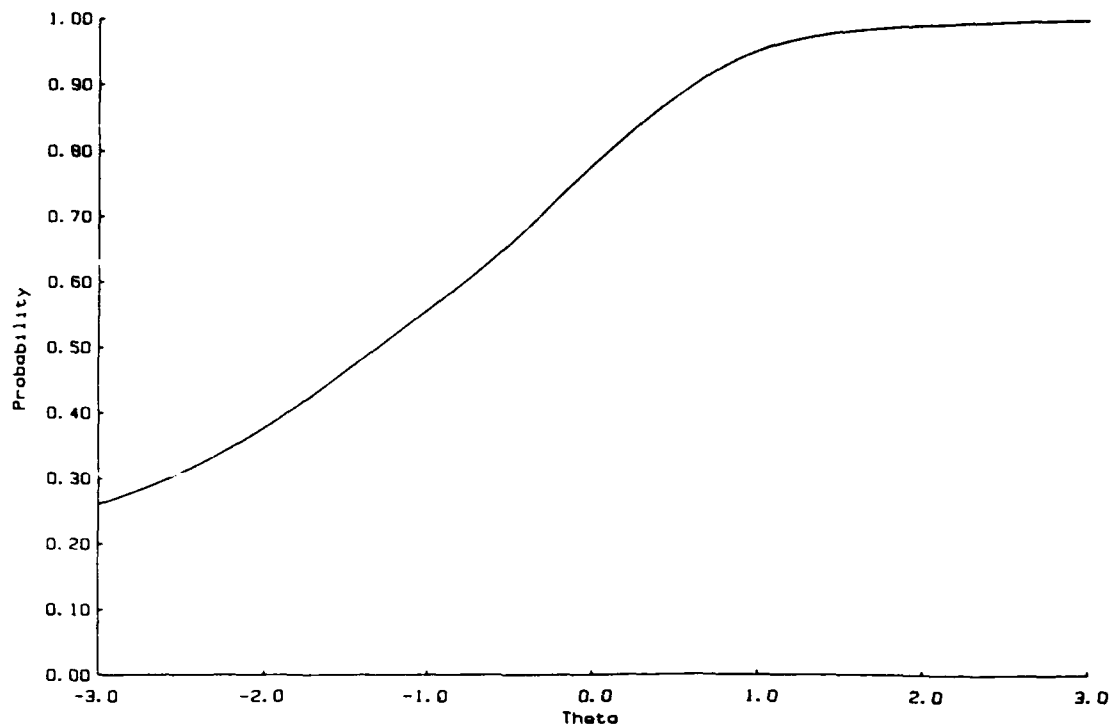


Figure B-23. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 11b (Total Sample).

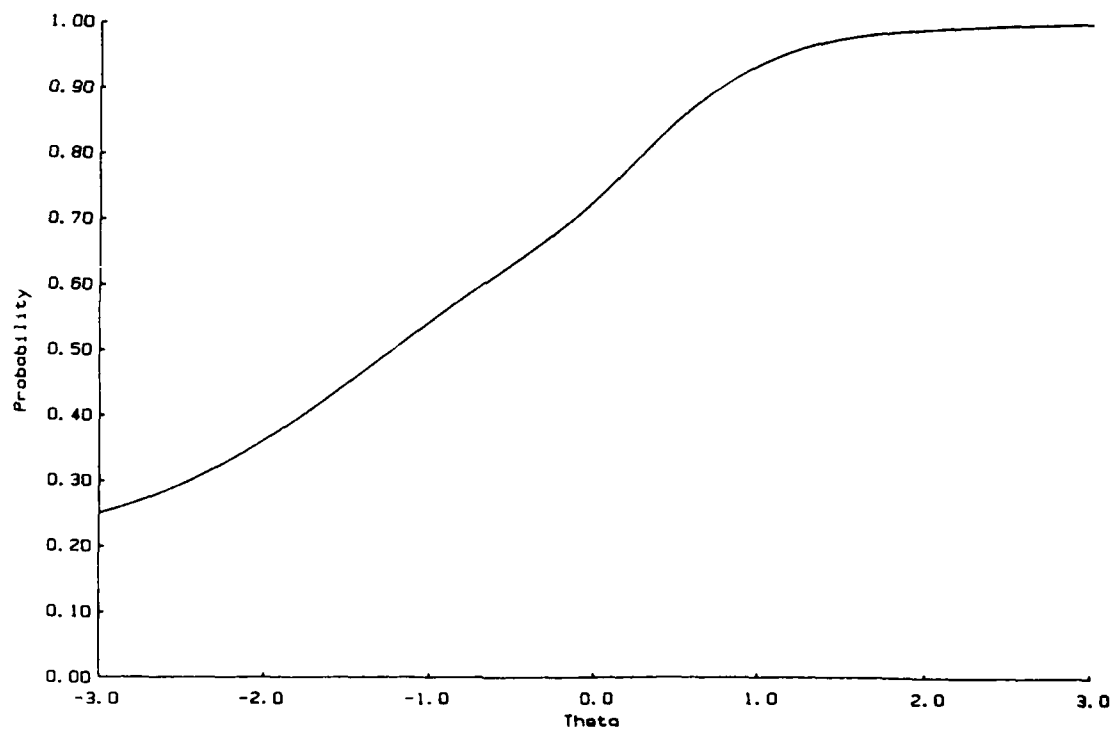


Figure B-24. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 12a (Total Sample).

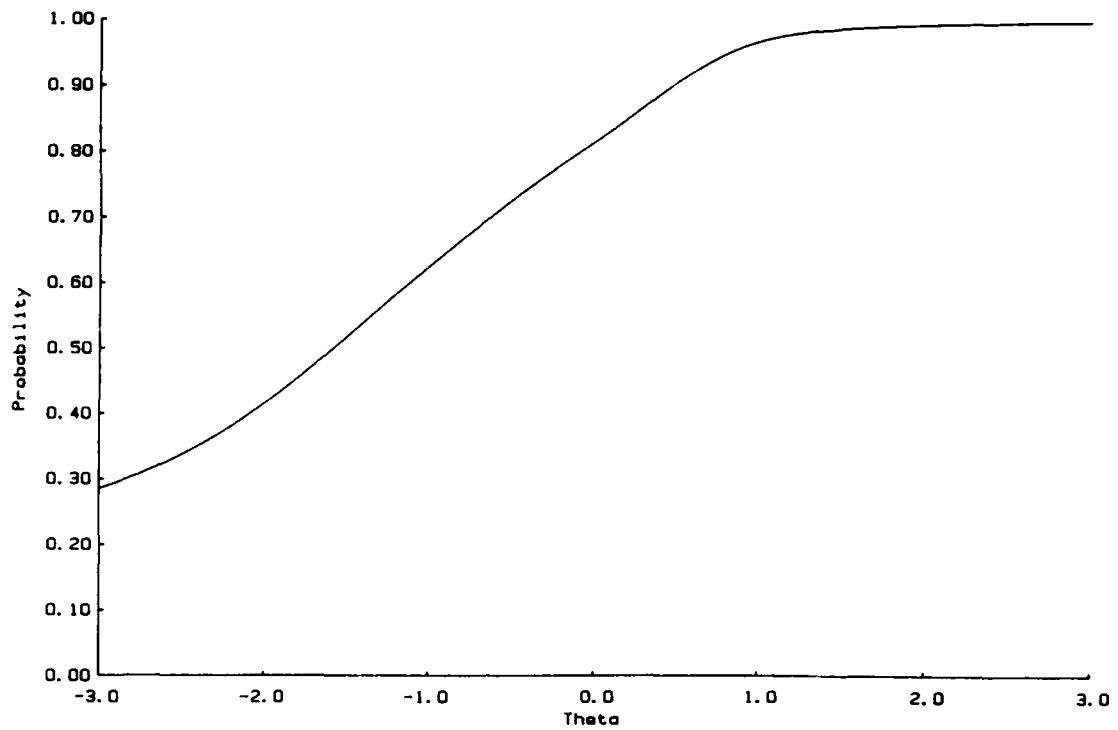


Figure B-25. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 12b (Total Sample).

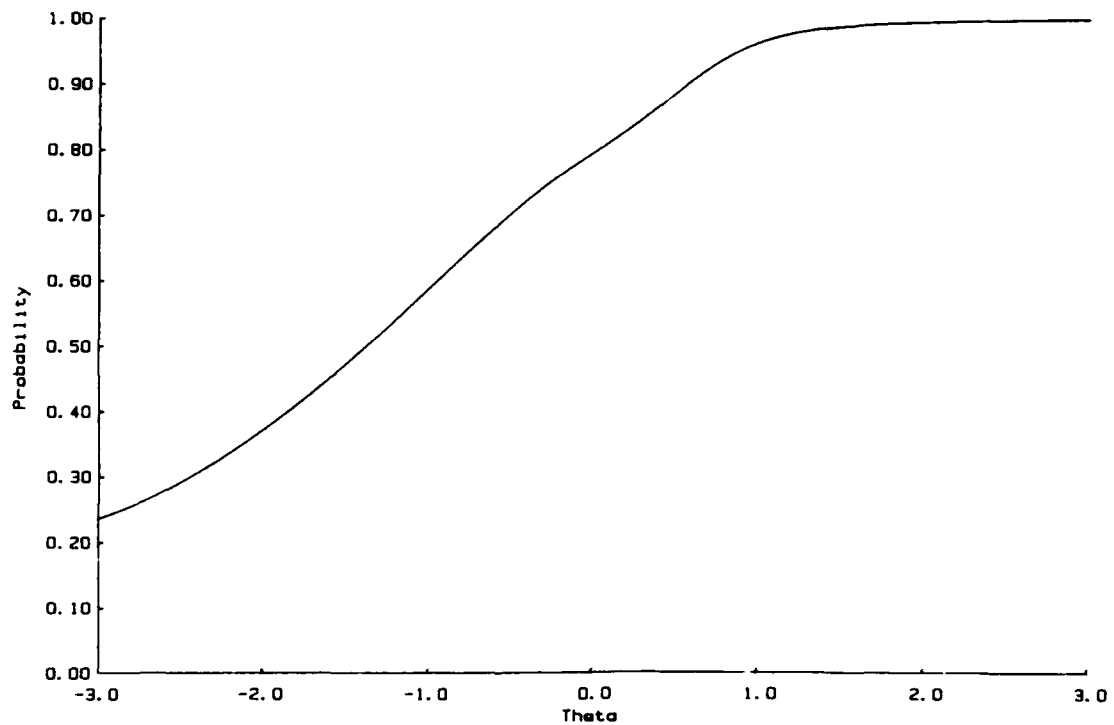


Figure B-26. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13a (Total Sample).



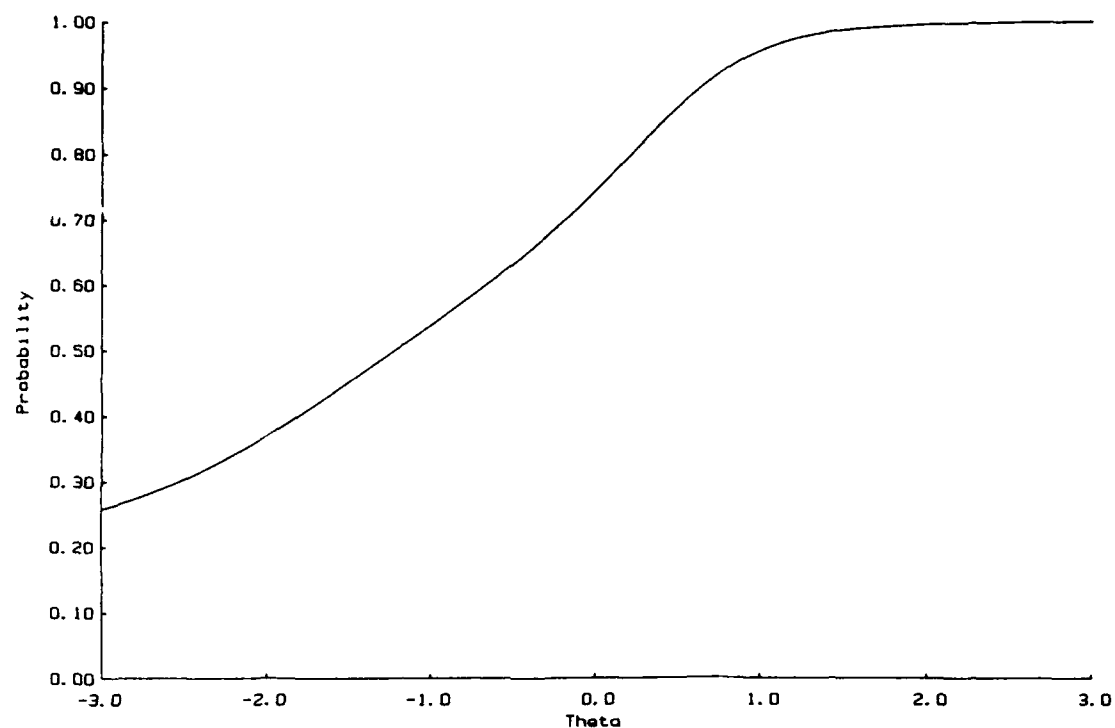


Figure 8-27. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13b (Total Sample).

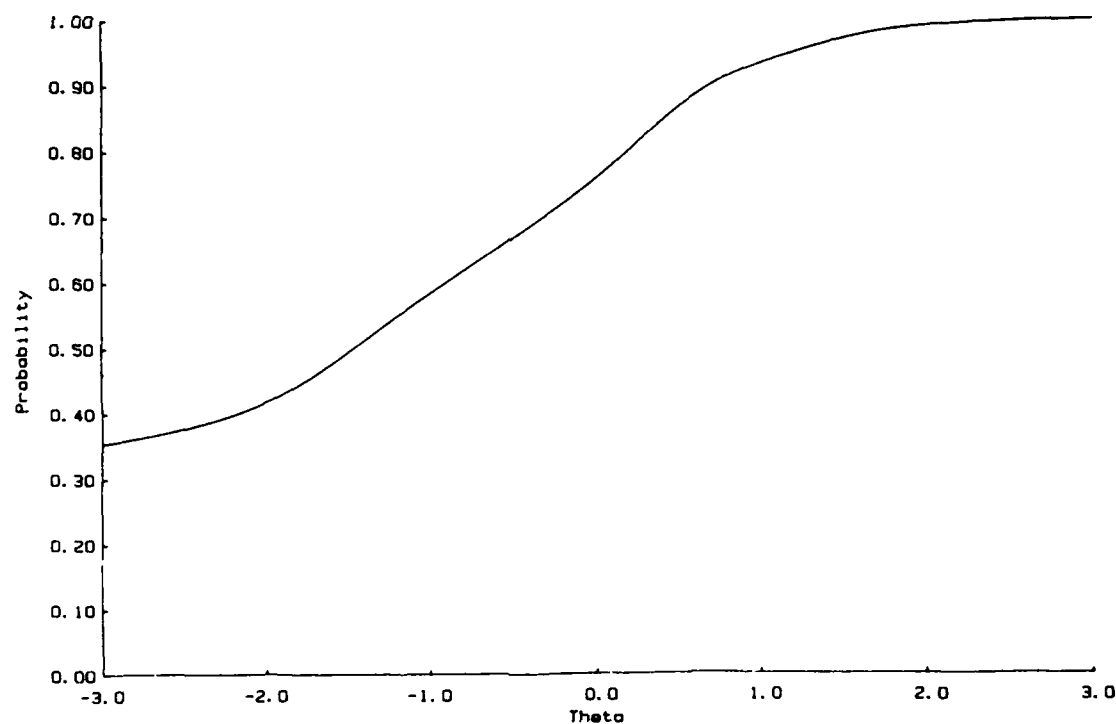


Figure 8-28. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13c (Total Sample).

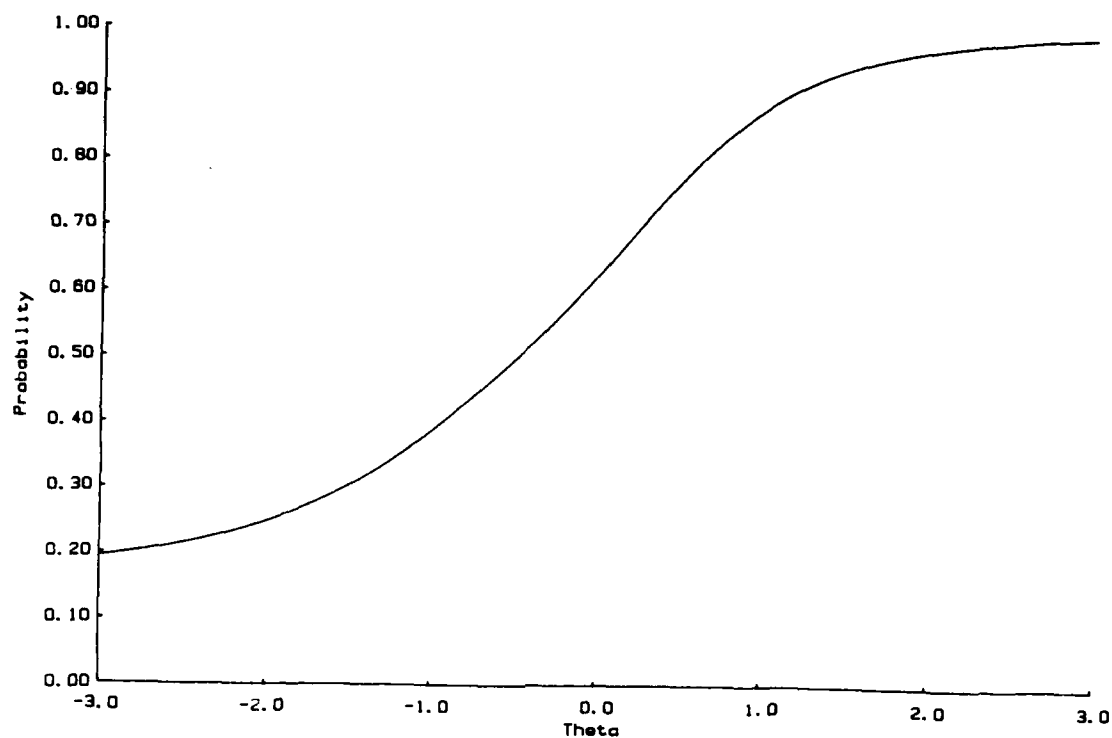


Figure B-29. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 11a (Total Sample).

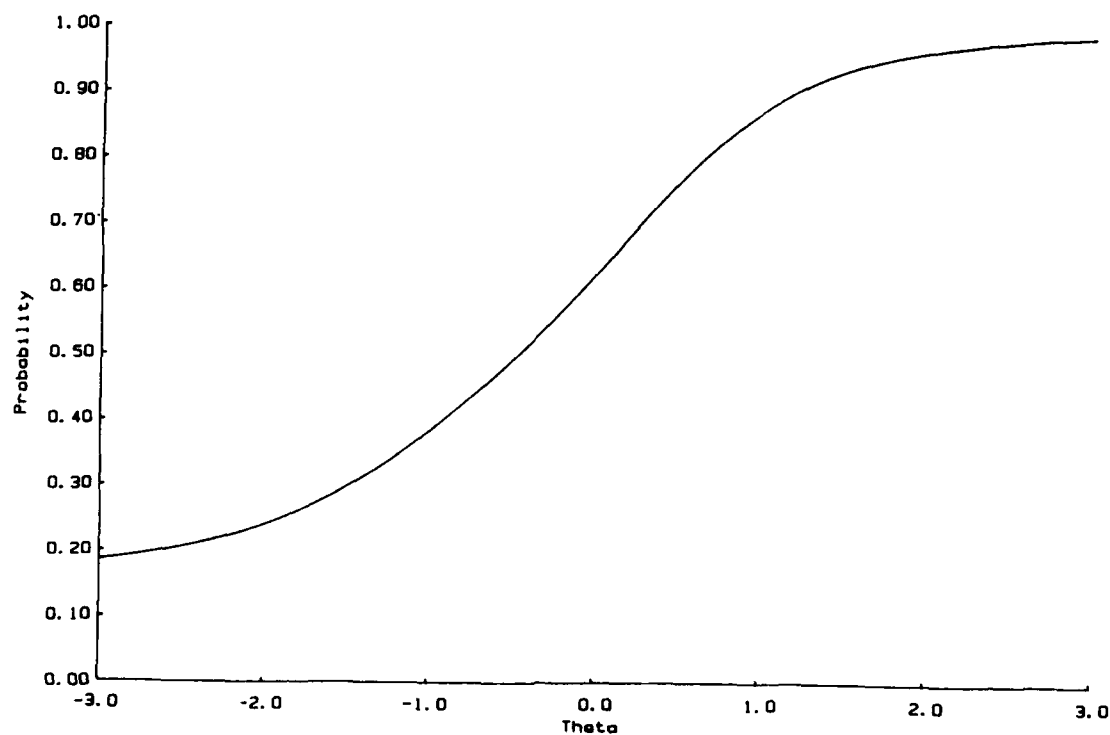


Figure B-30. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 11b (Total Sample).

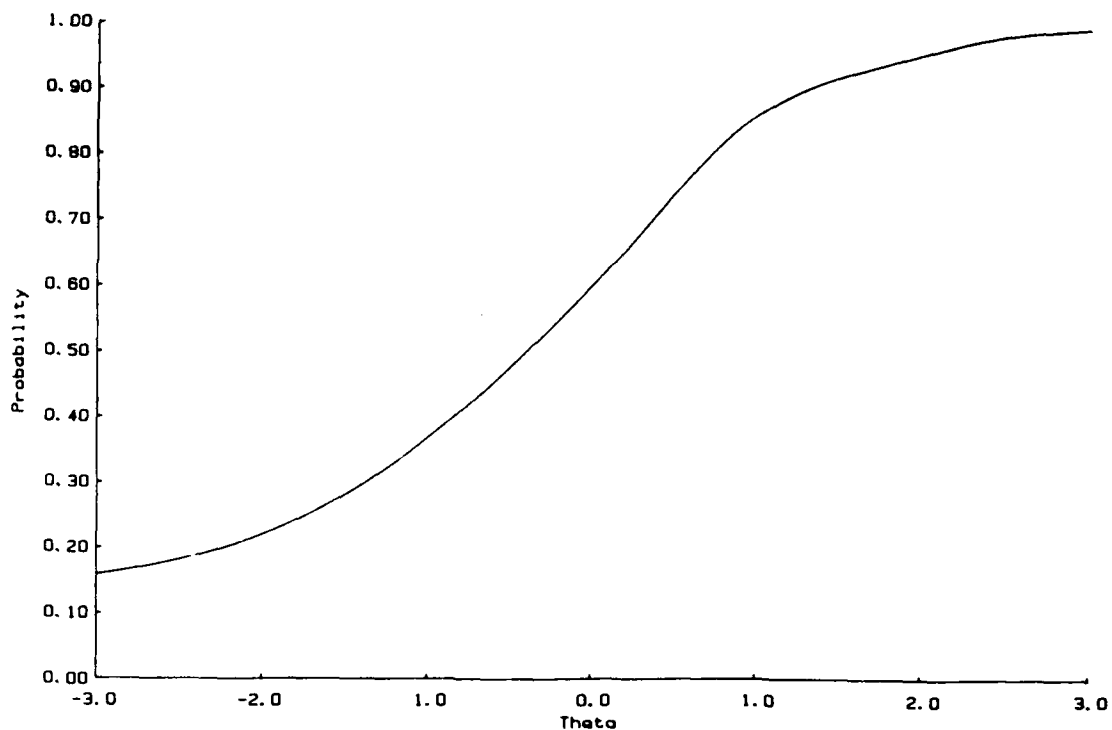


Figure 8-31. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 12a (Total Sample).

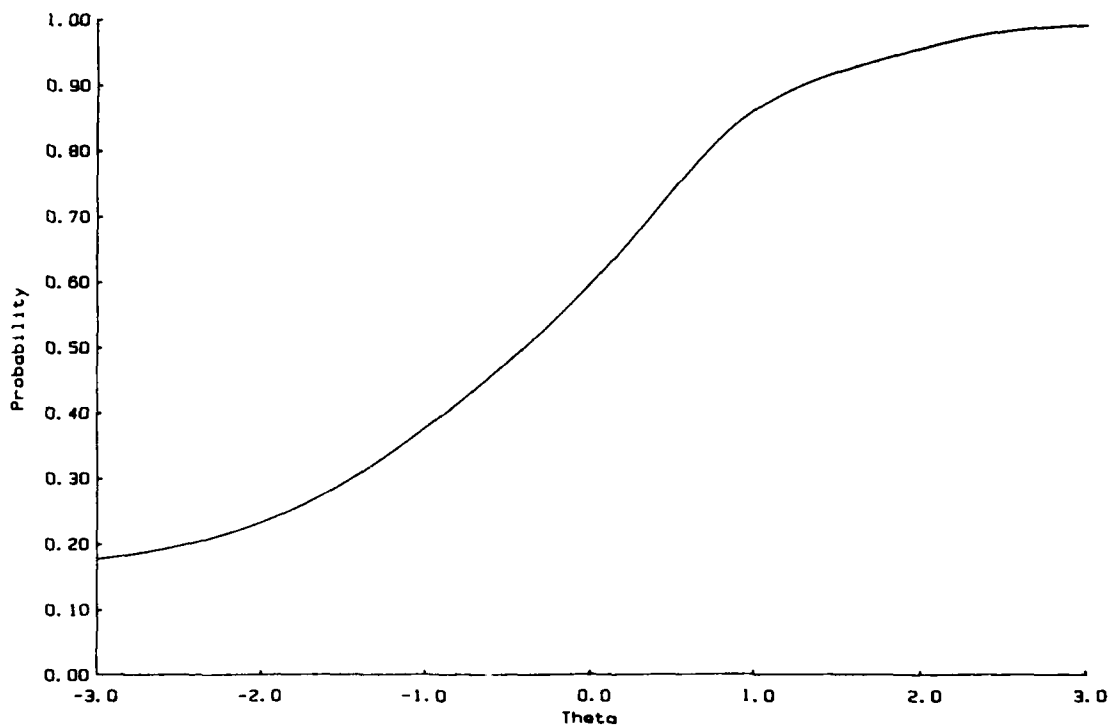


Figure 8-32. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 12b (Total Sample).

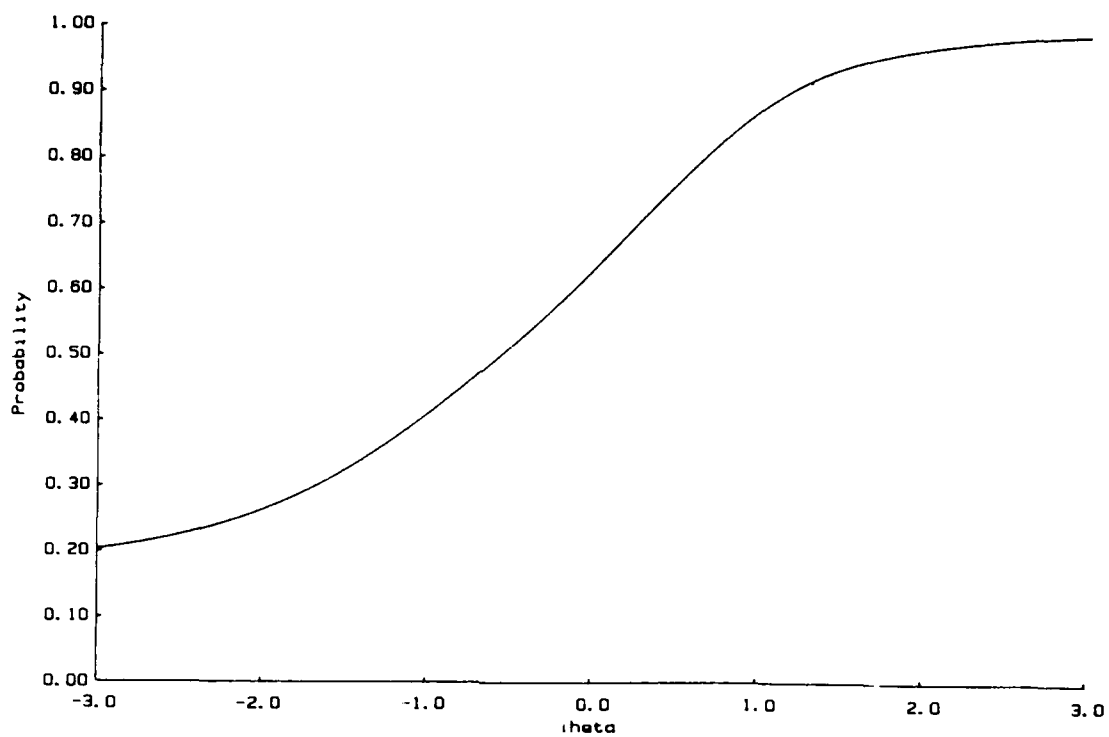


Figure 8-33. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13a (Total Sample).

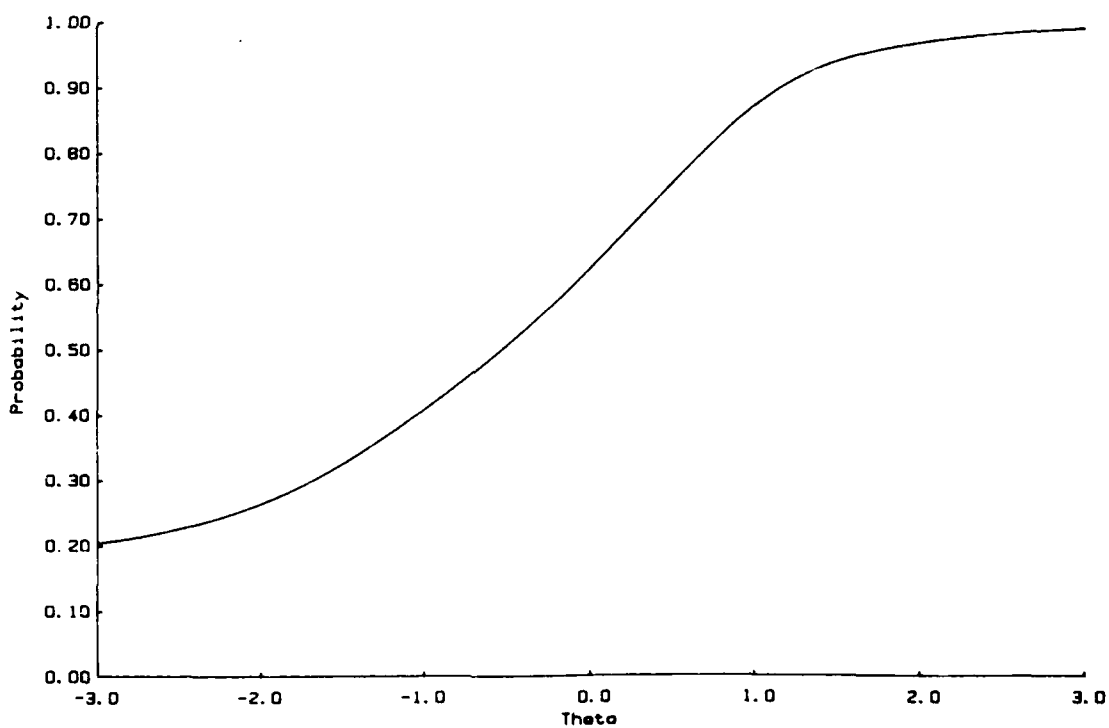


Figure 8-34. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13b (Total Sample).

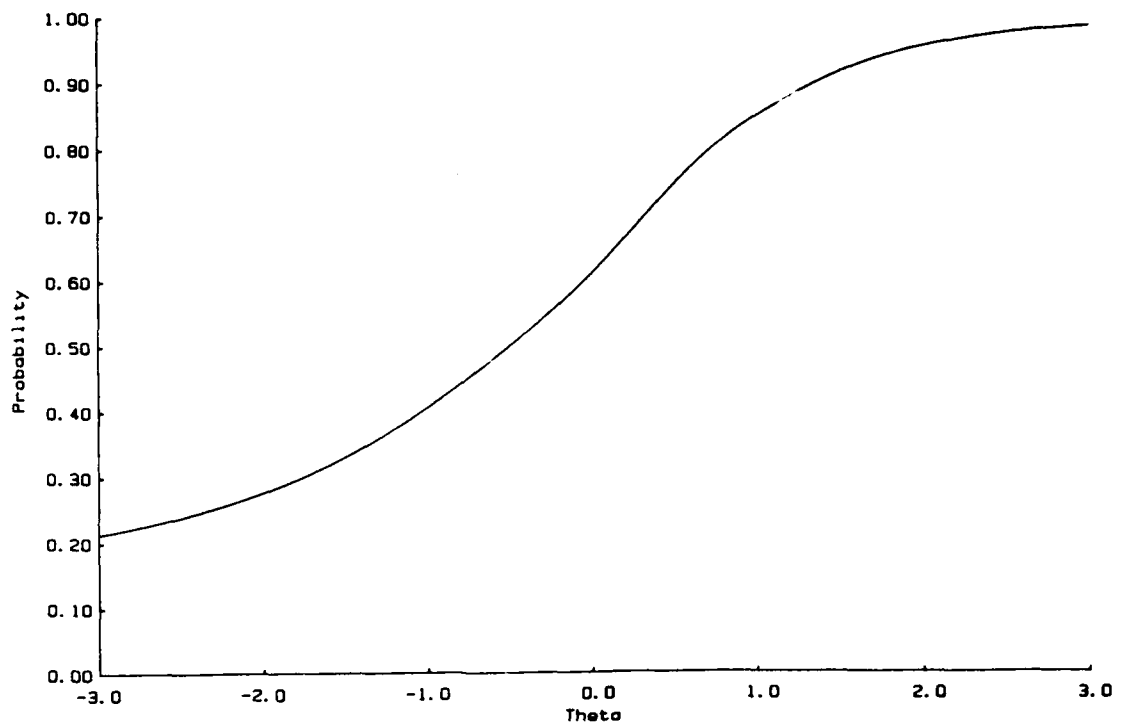


Figure B-35. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13c (Total Sample).

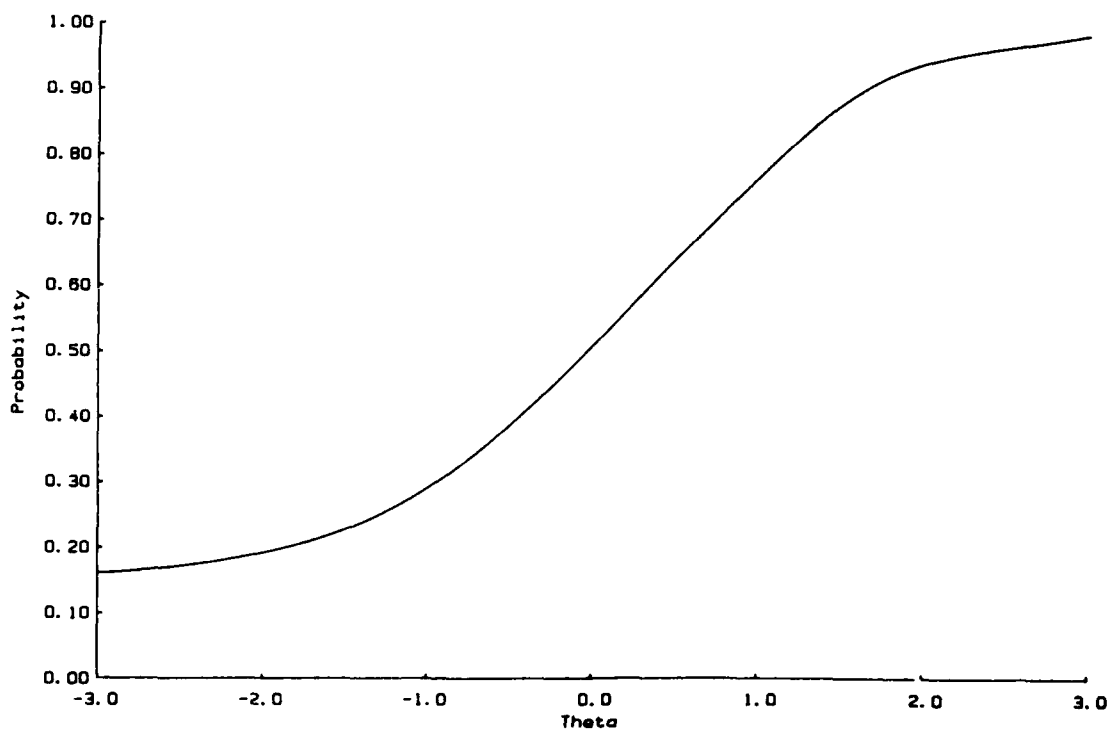


Figure B-36. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 11a (Total Sample).

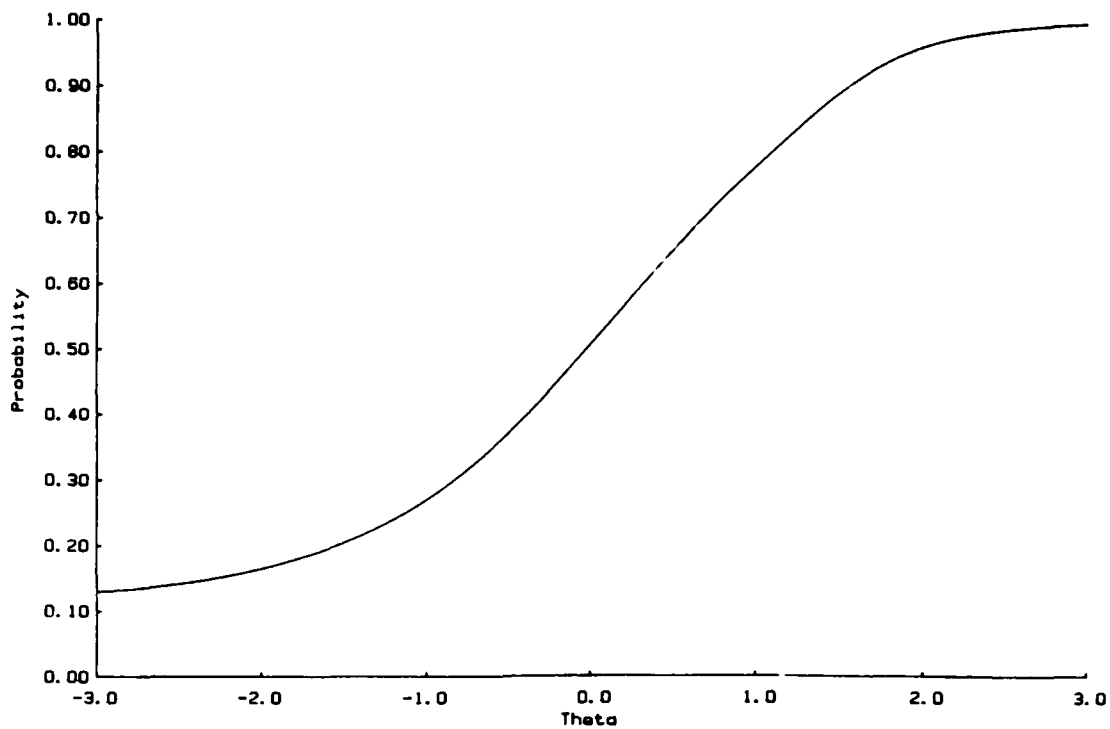


Figure B-37. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 11b (Total Sample).

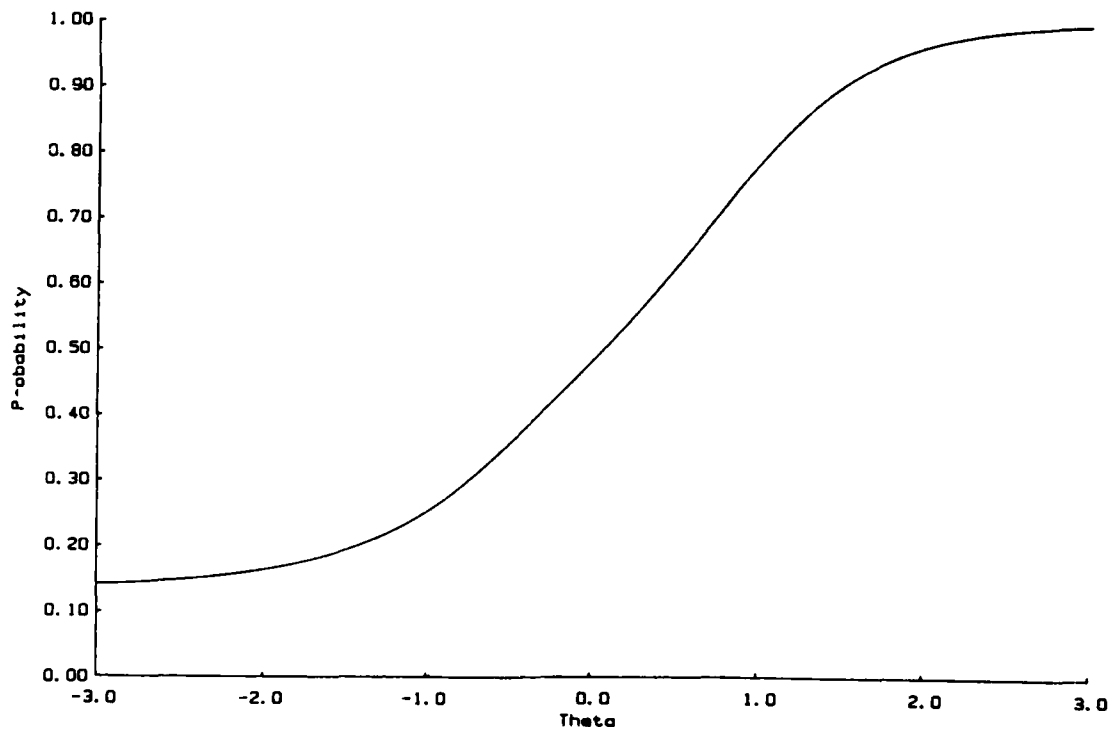


Figure B-38. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 12a (Total Sample).

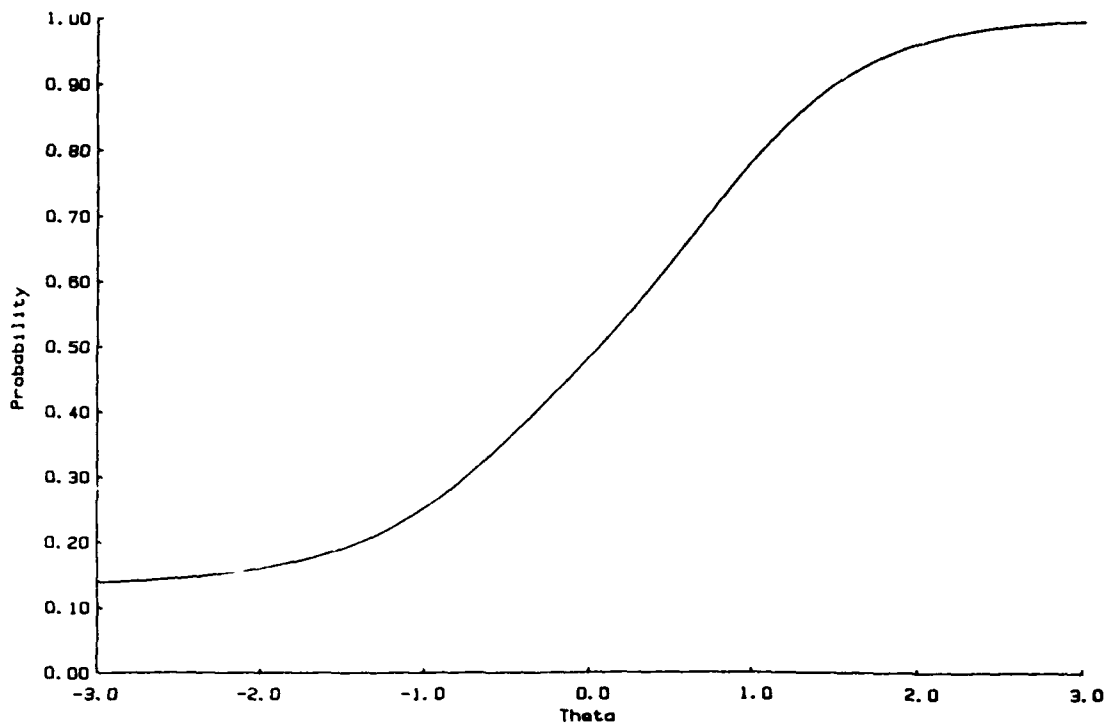


Figure B-39. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 12b (Total Sample).

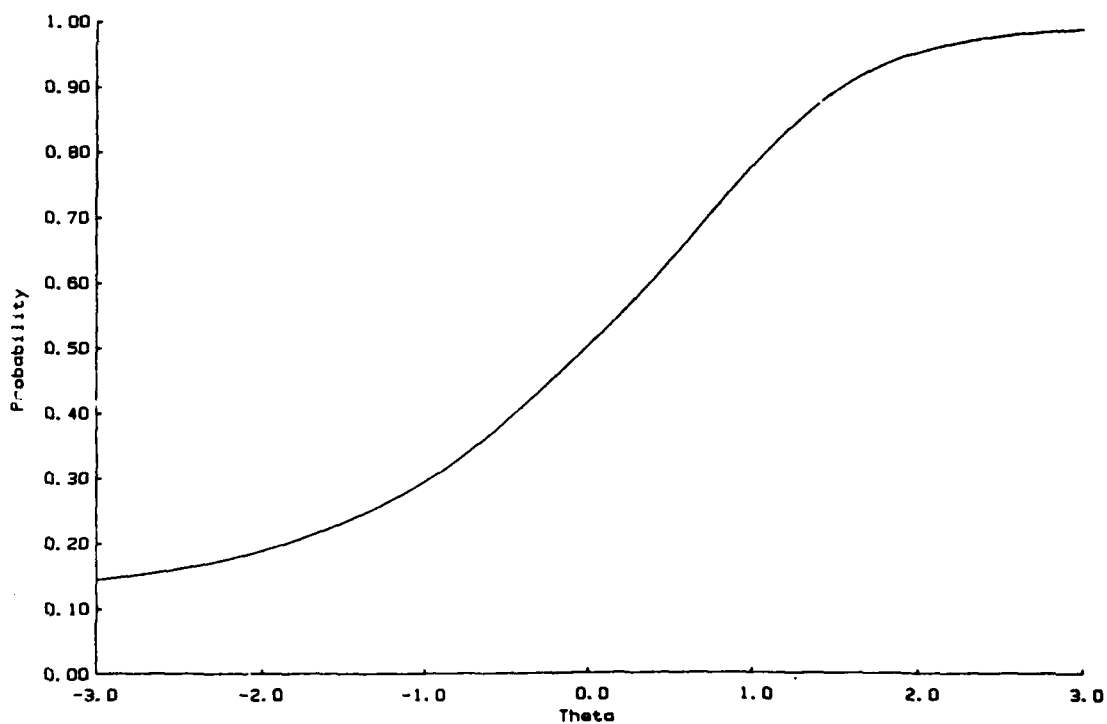


Figure B-40. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13a (Total Sample).

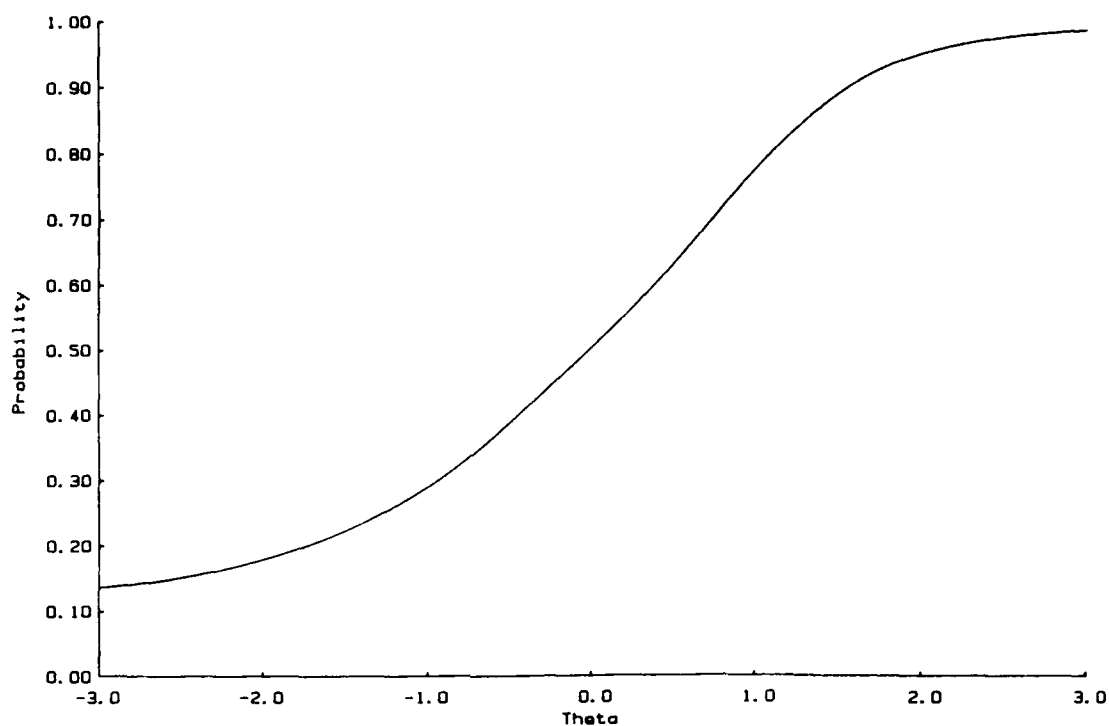


Figure 8-41. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13b (Total Sample).

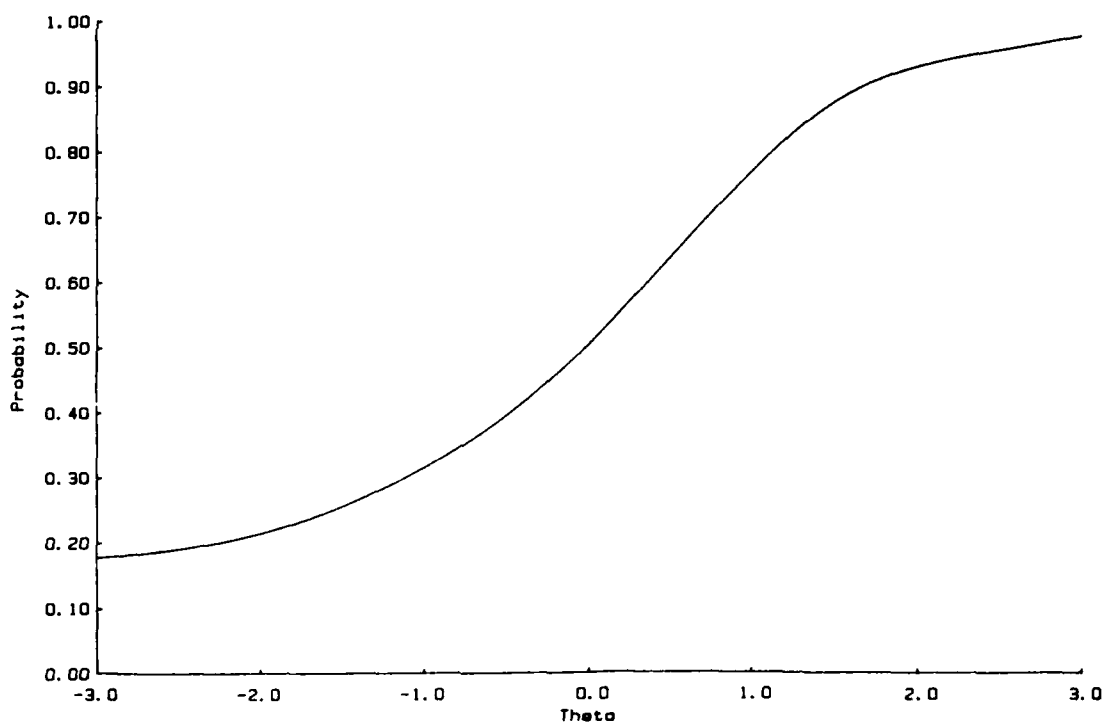


Figure 8-42. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13c (Total Sample).



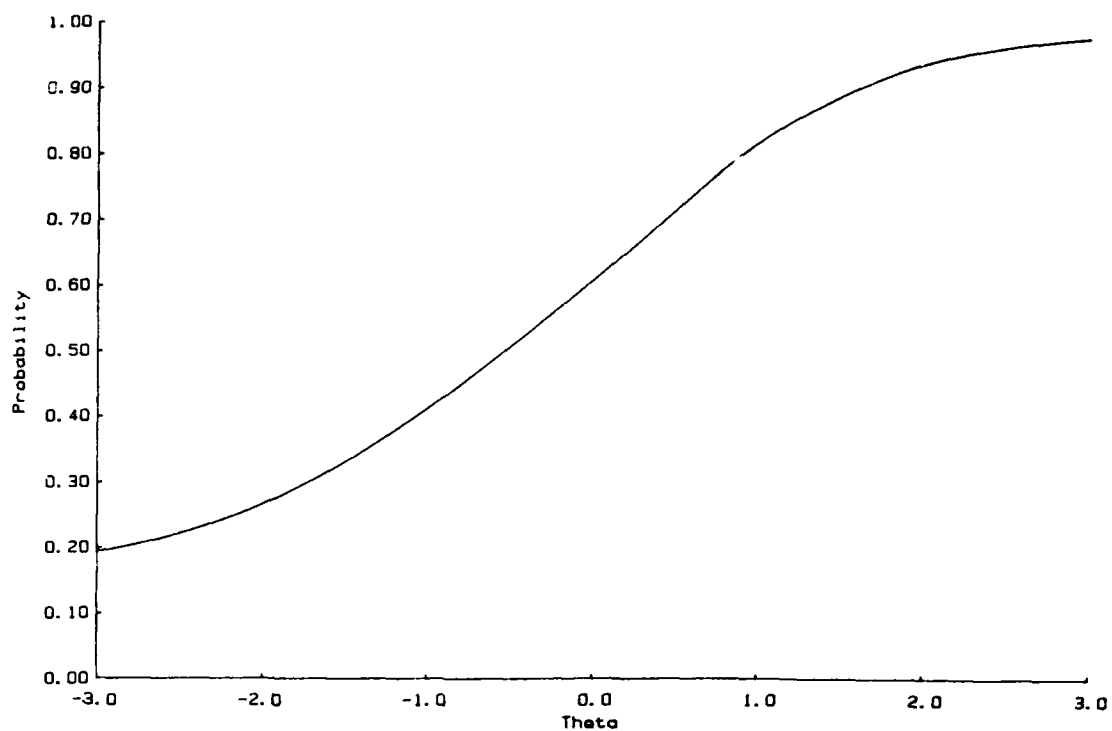


Figure 8-43. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 11a (Total Sample).

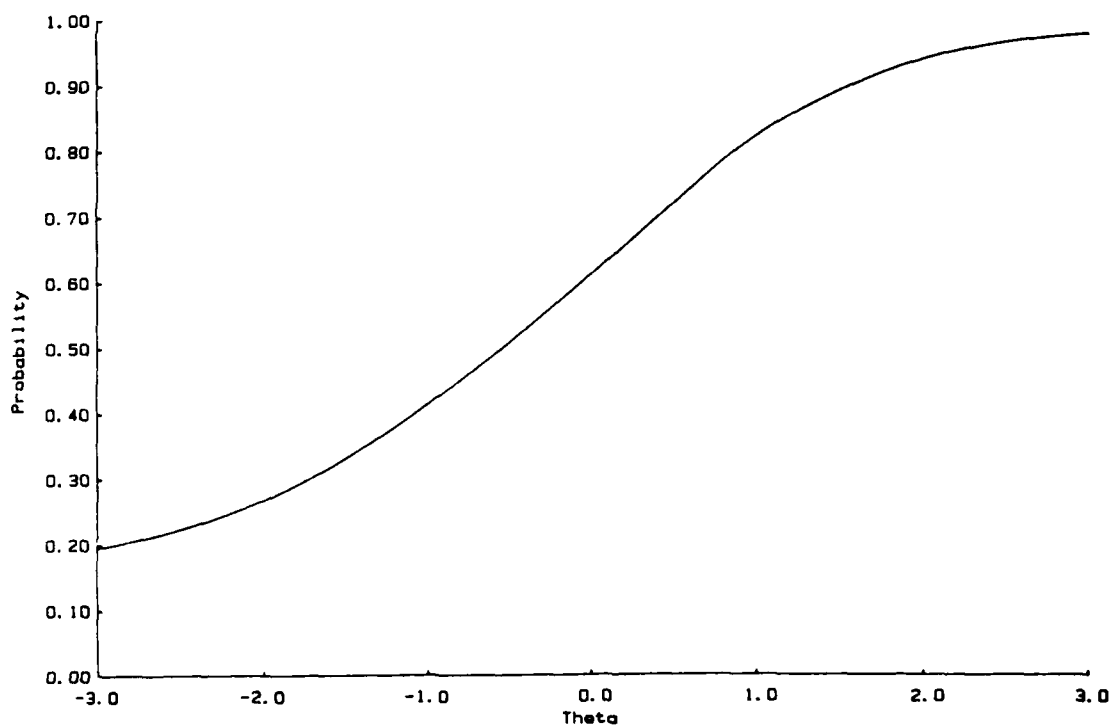


Figure 8-44. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 11b (Total Sample).

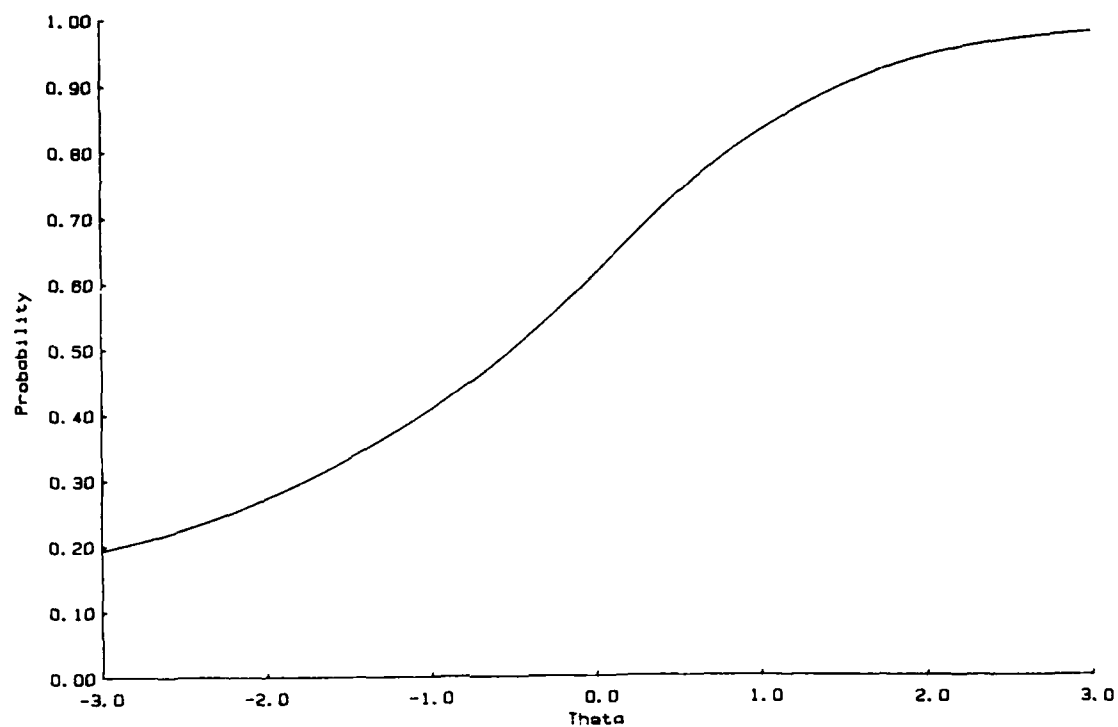


Figure B-45. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 12a (Total Sample).

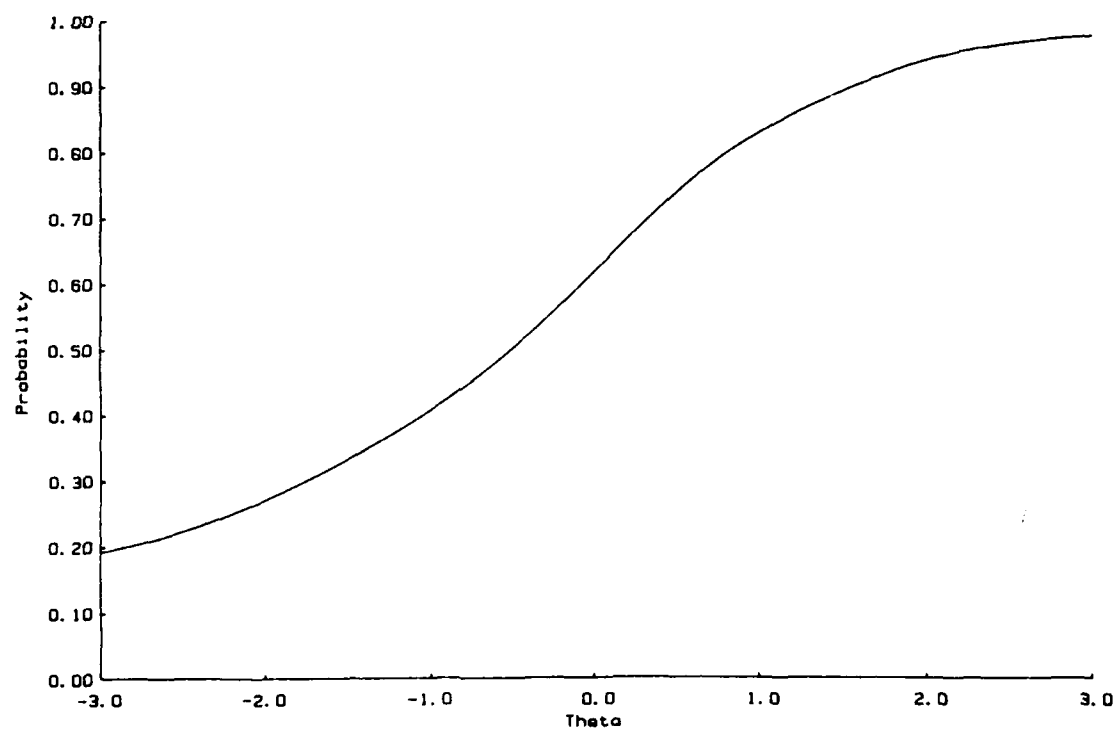


Figure B-46. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 12b (Total Sample).

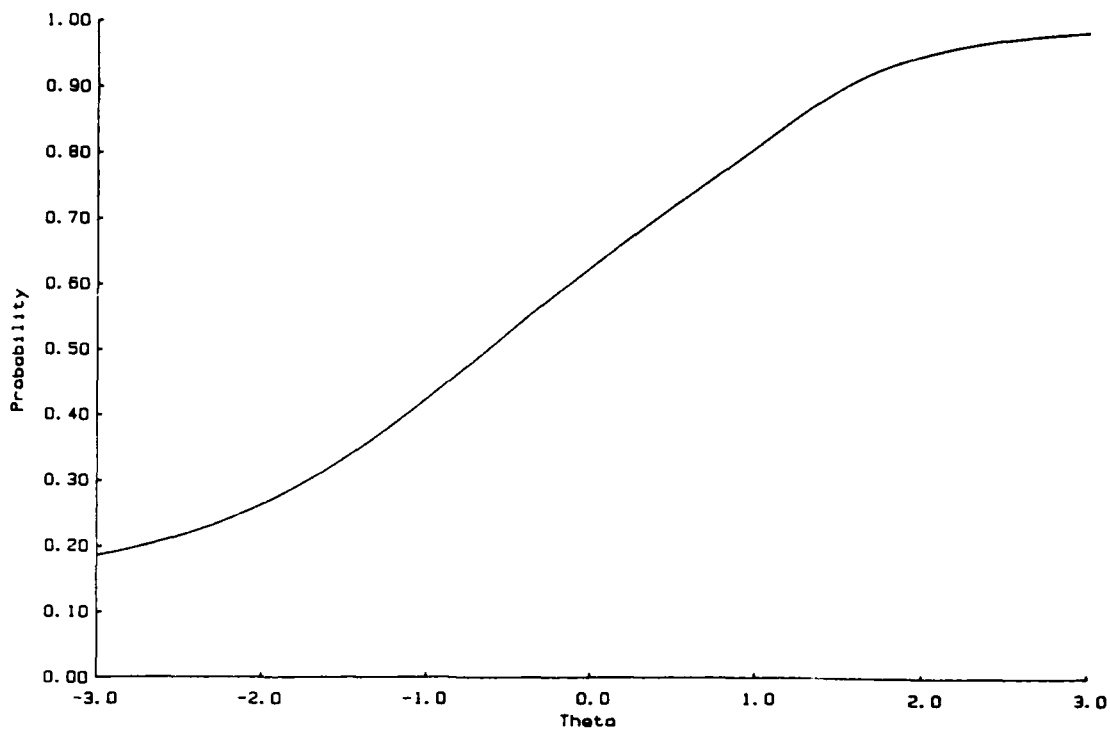


Figure B-47. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13a (Total Sample).

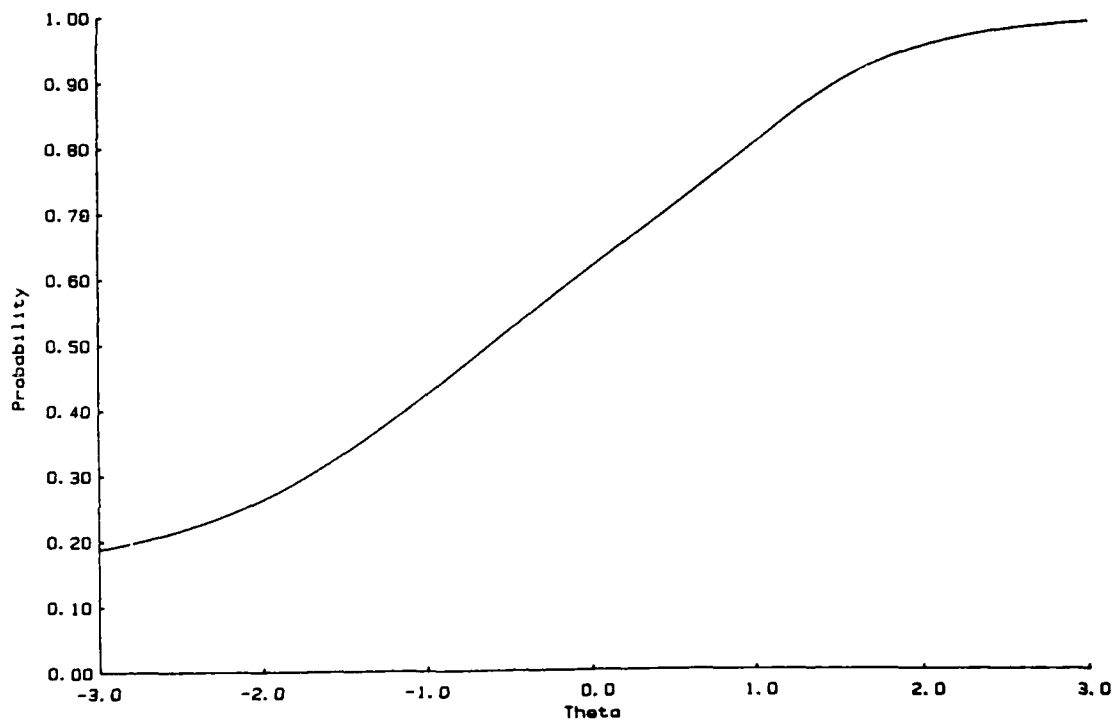


Figure B-48. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13b (Total Sample).

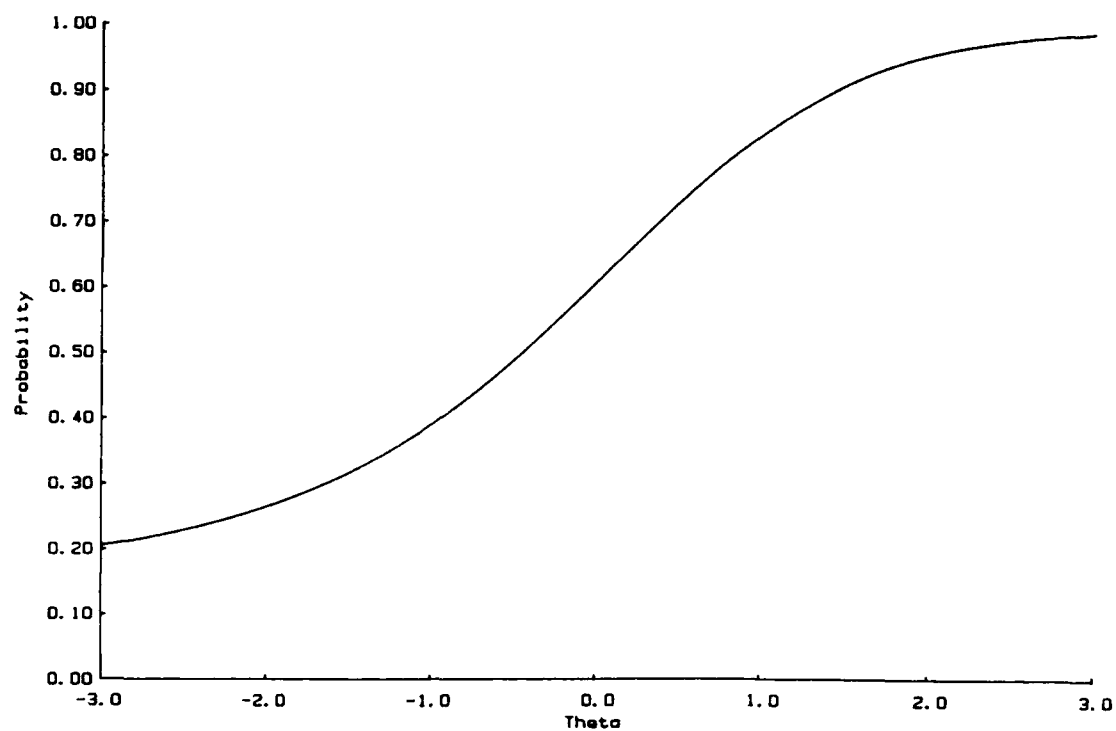


Figure B-49. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13c (Total Sample).

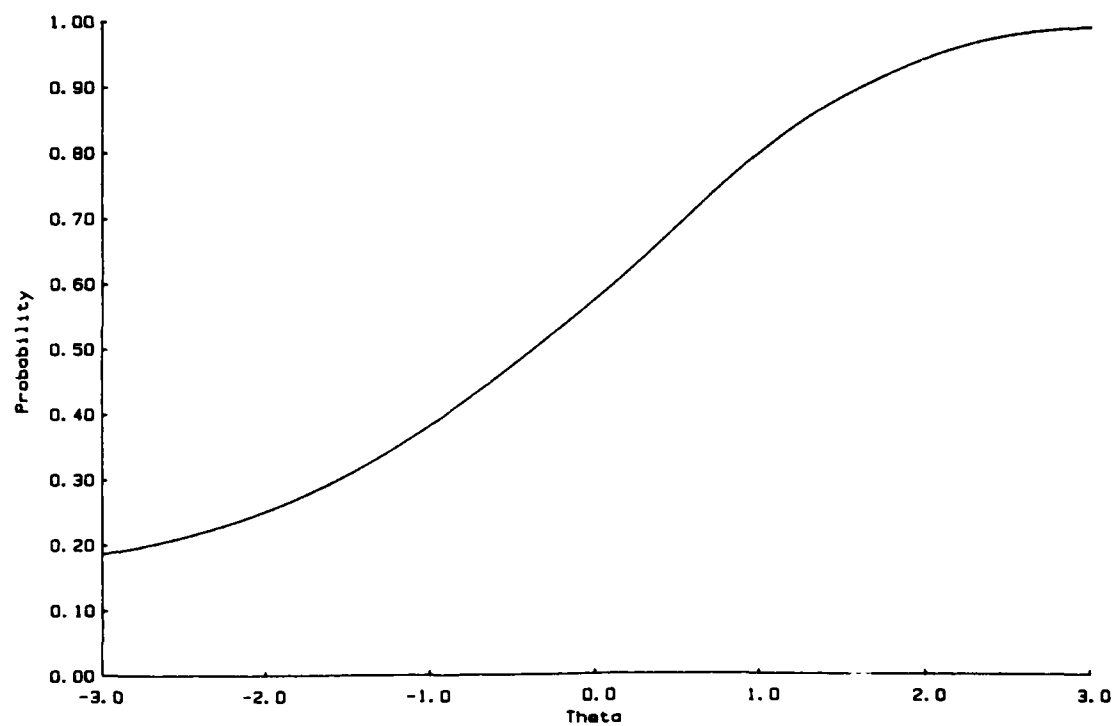


Figure B-50. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 11a (Total Sample).

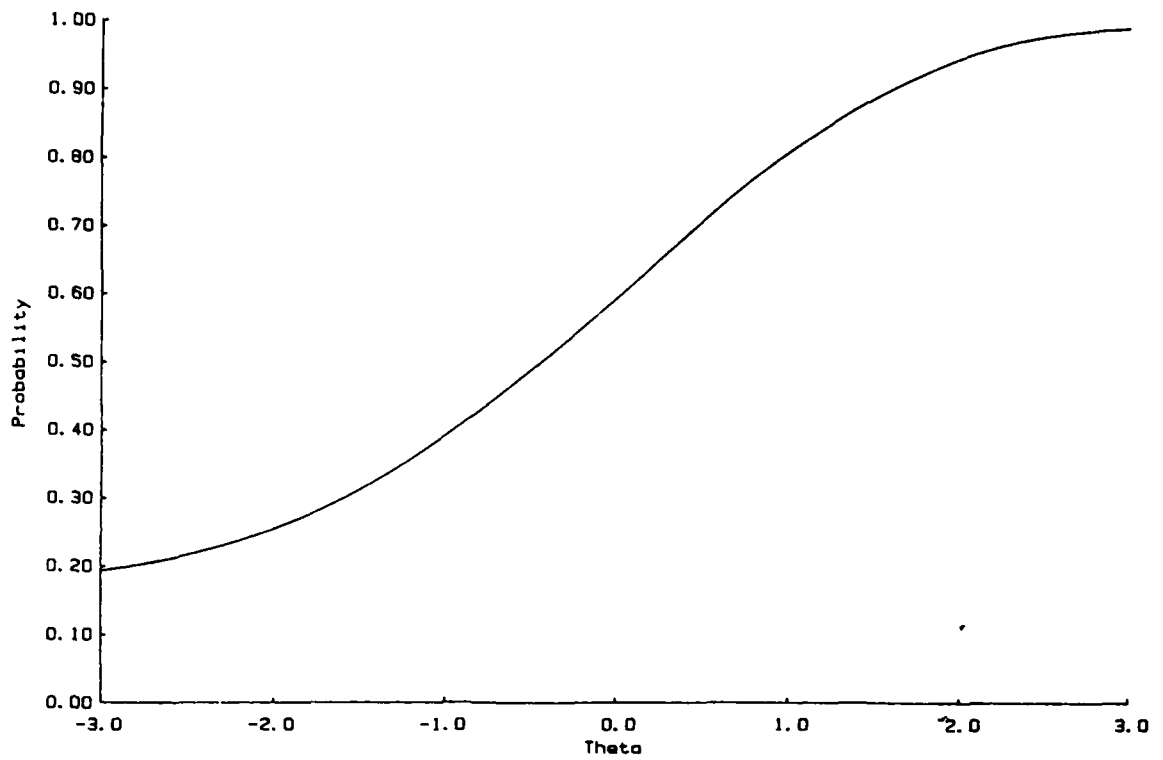


Figure B-51. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 11b (Total Sample).

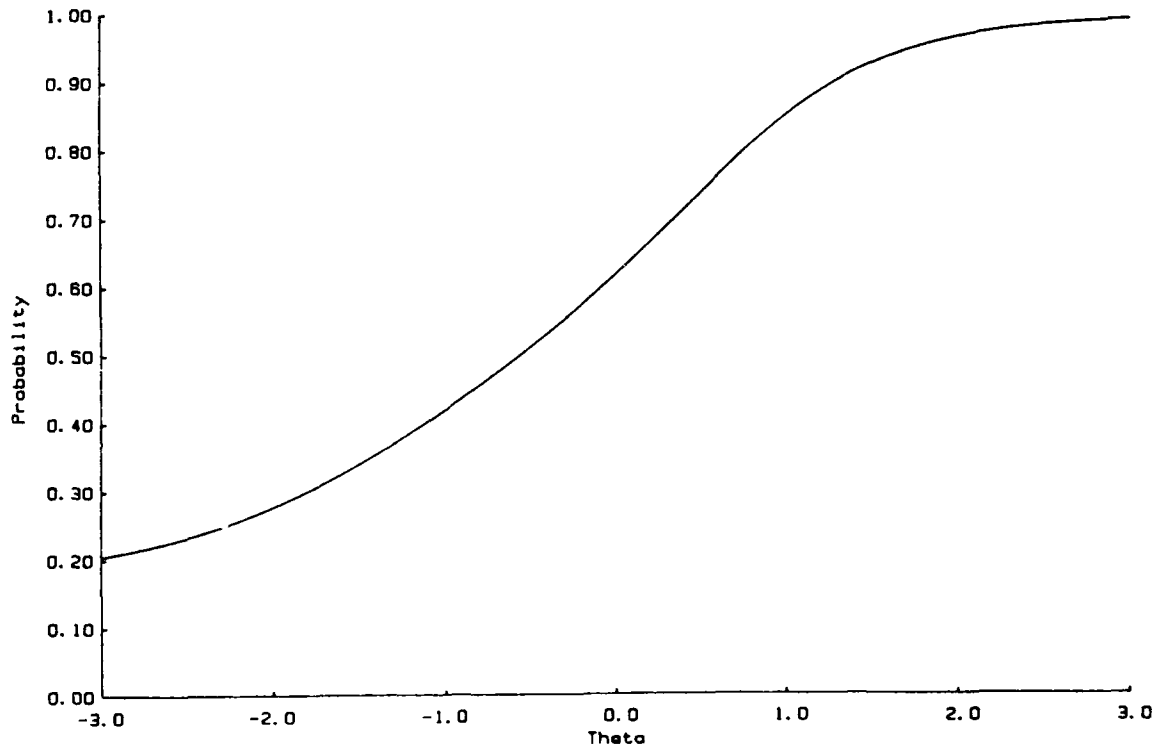


Figure B-52. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 12a (Total Sample).

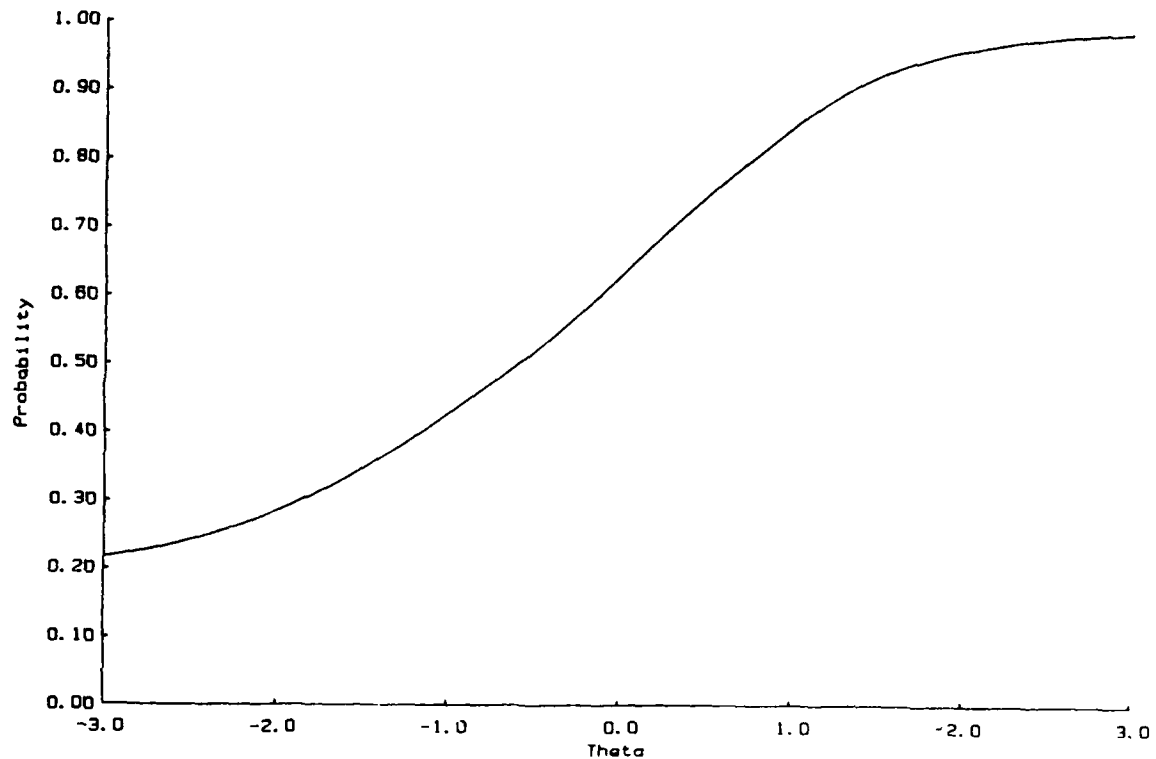


Figure 8-53. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 12b (Total Sample).

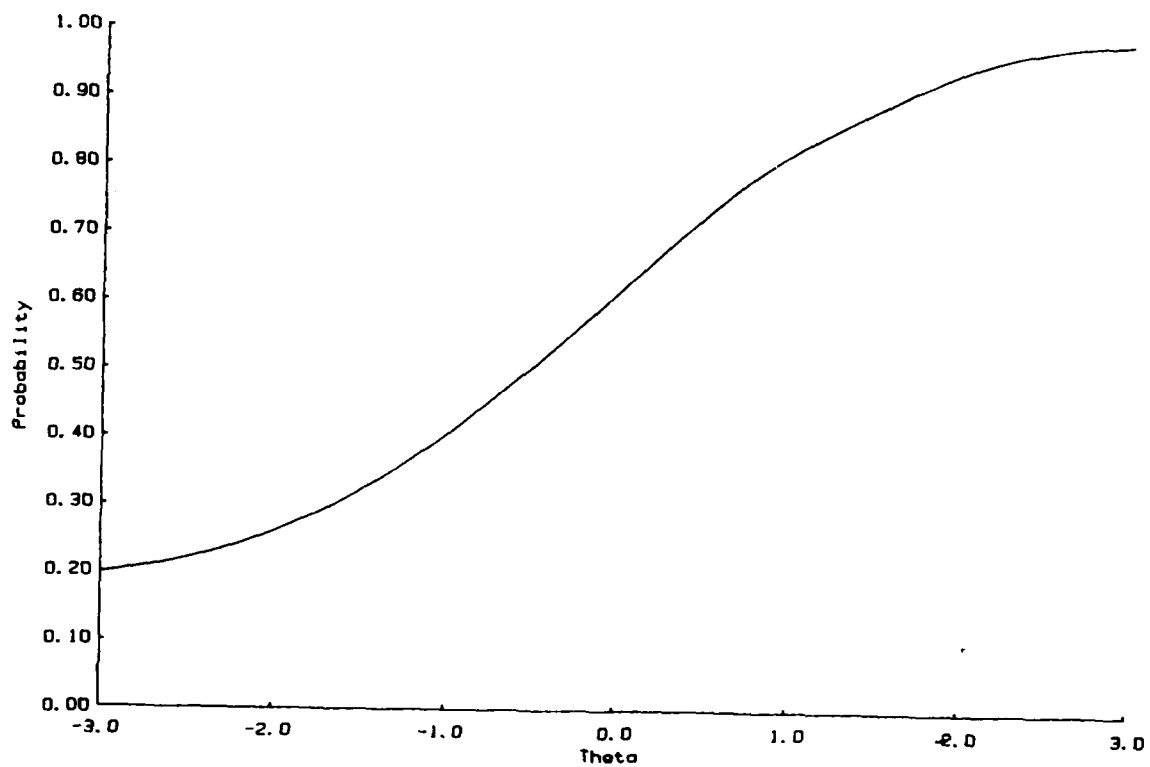


Figure 8-54. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13a (Total Sample).

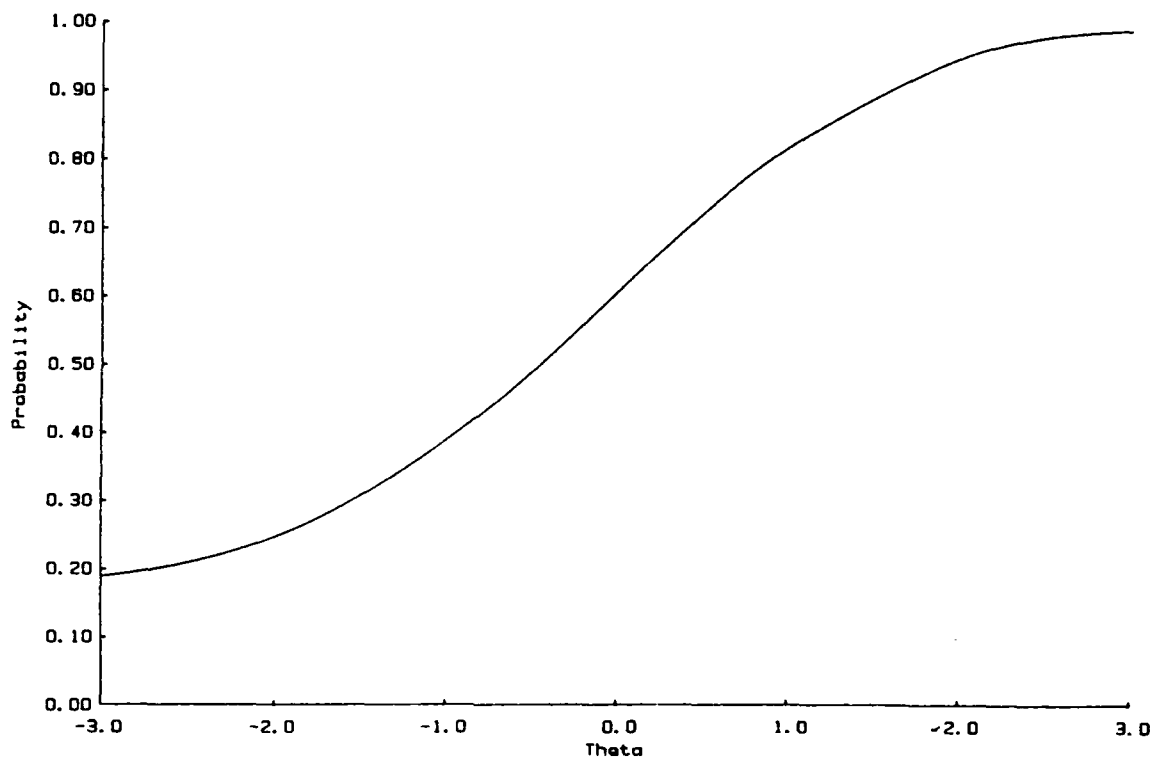


Figure 8-55. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13b (Total Sample).

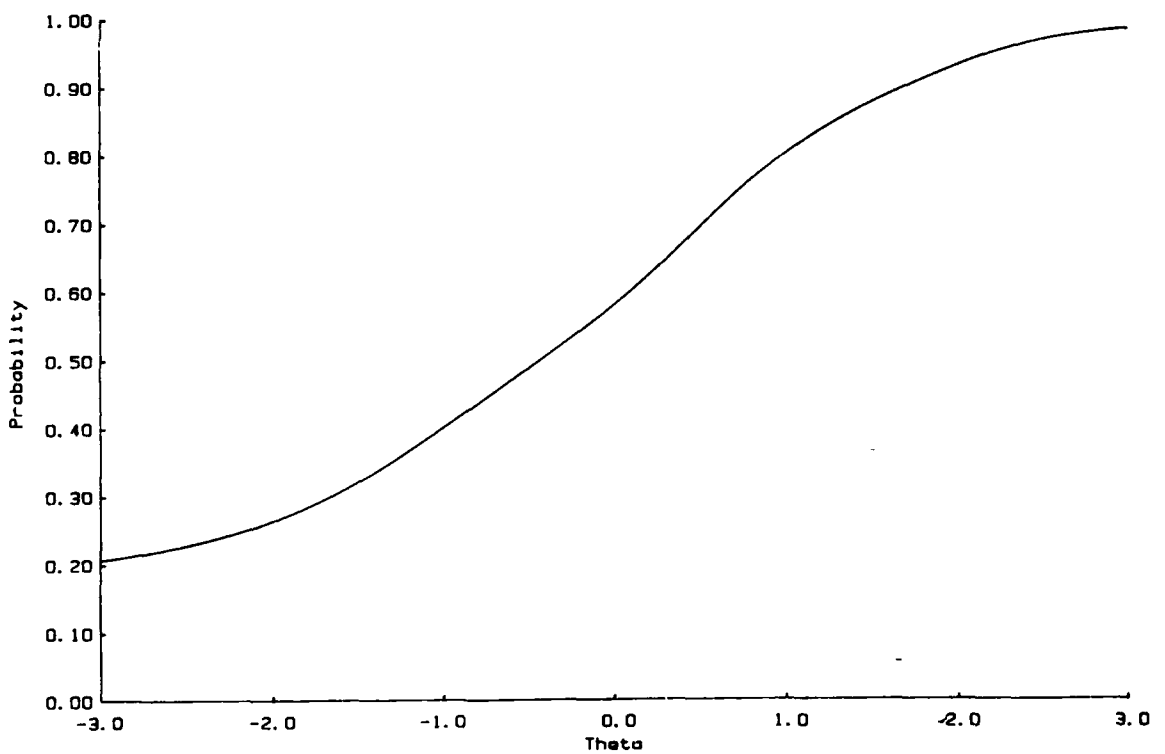


Figure 8-56. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13c (Total Sample).

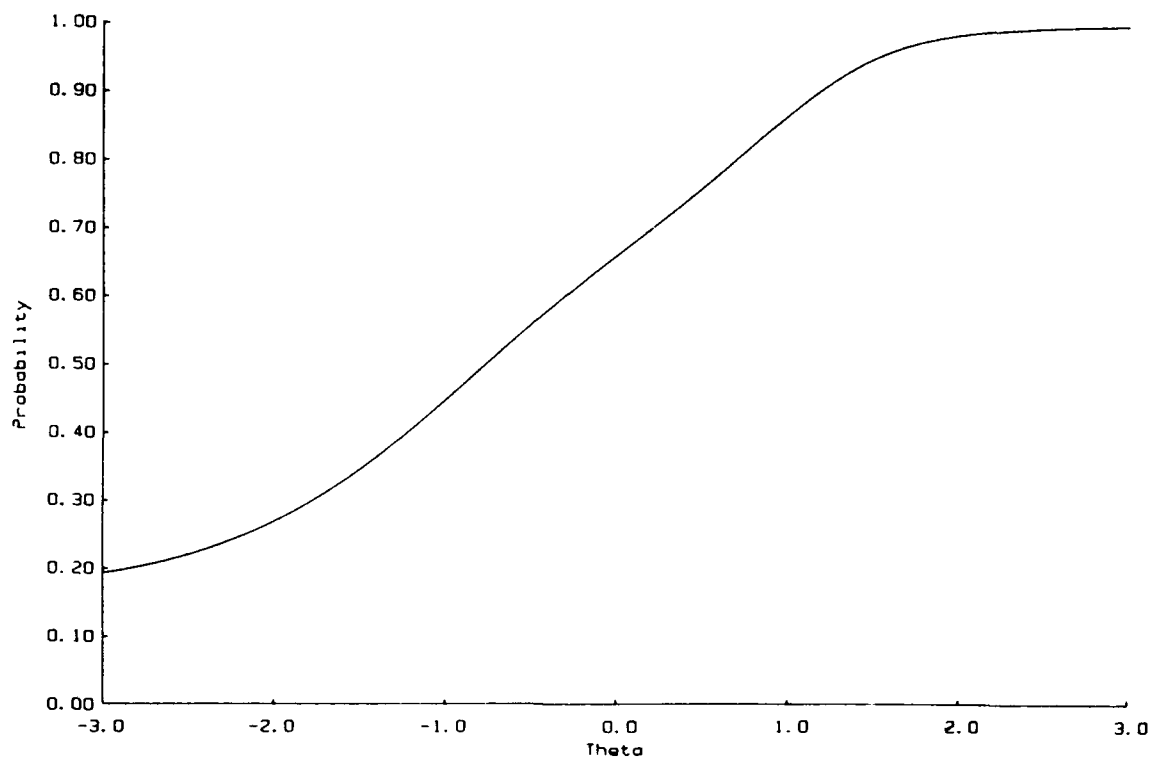


Figure 8-57. Test Characteristic Curve for General Science Subtest on ASVAB Form 11a (Male Sample).

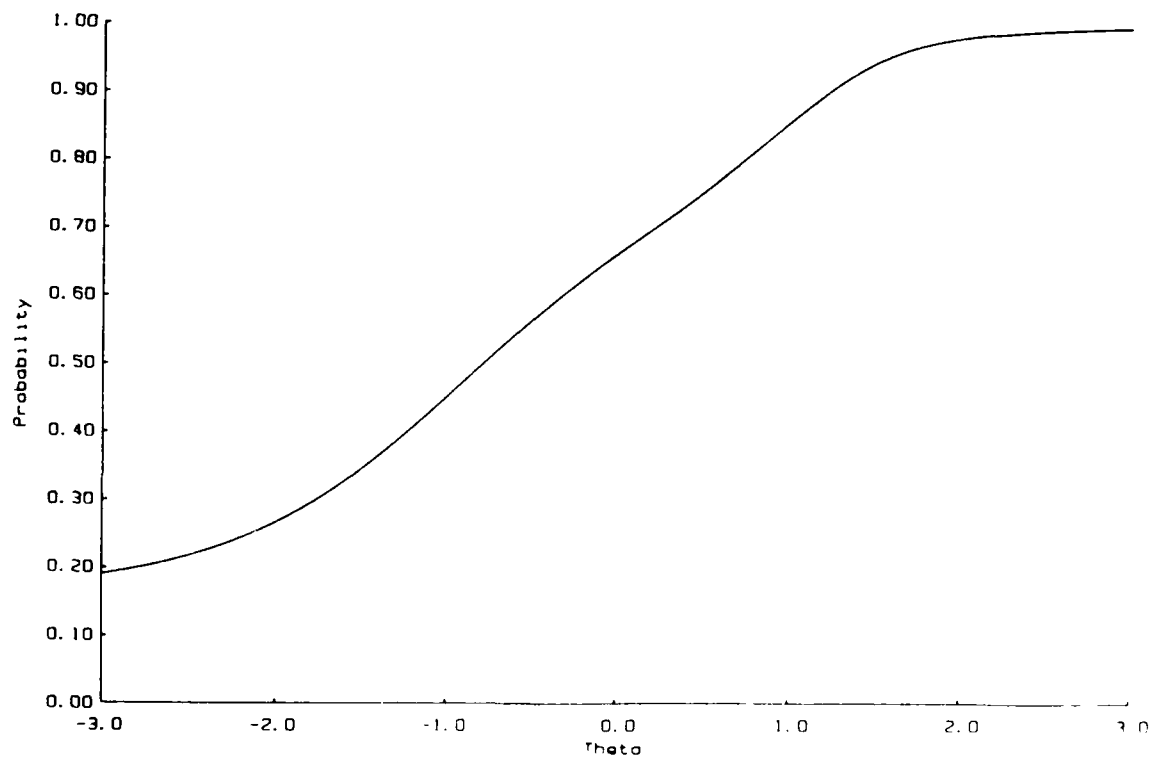


Figure 8-58. Test Characteristic Curve for General Science Subtest on ASVAB Form 11b (Male Sample).



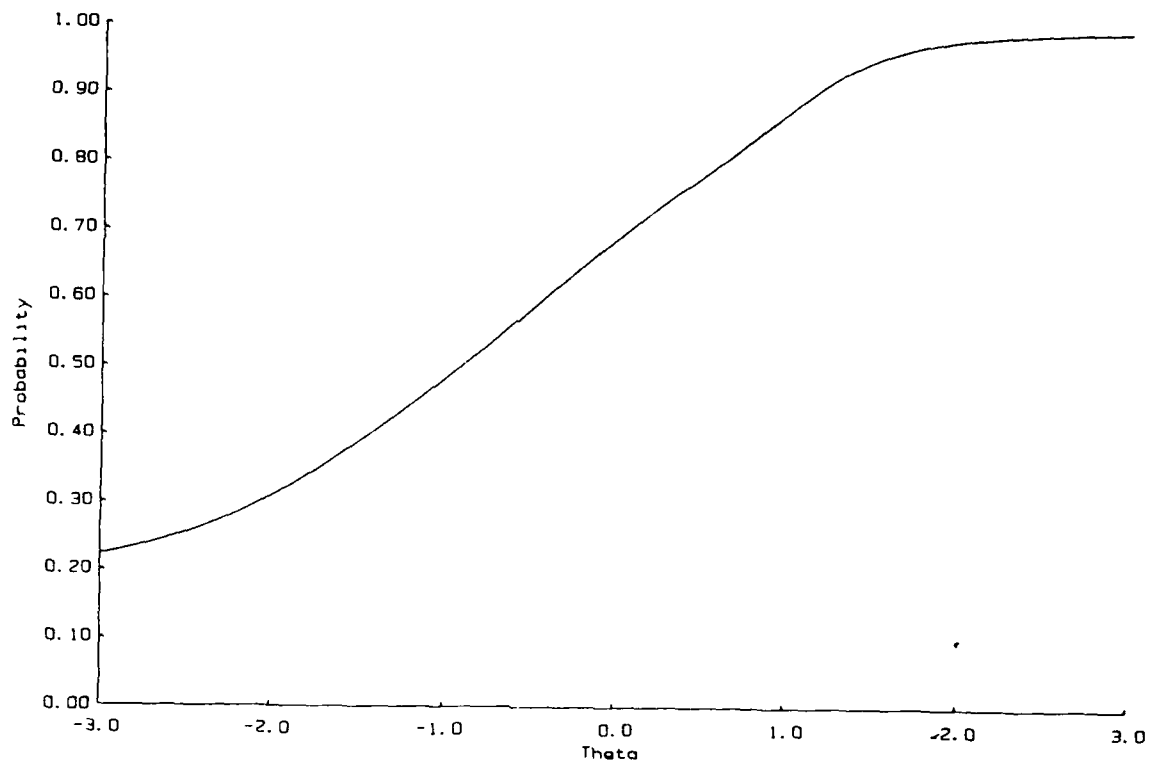


Figure 8-59. Test Characteristic Curve for General Science Subtest on ASVAB Form 12a (Male Sample).

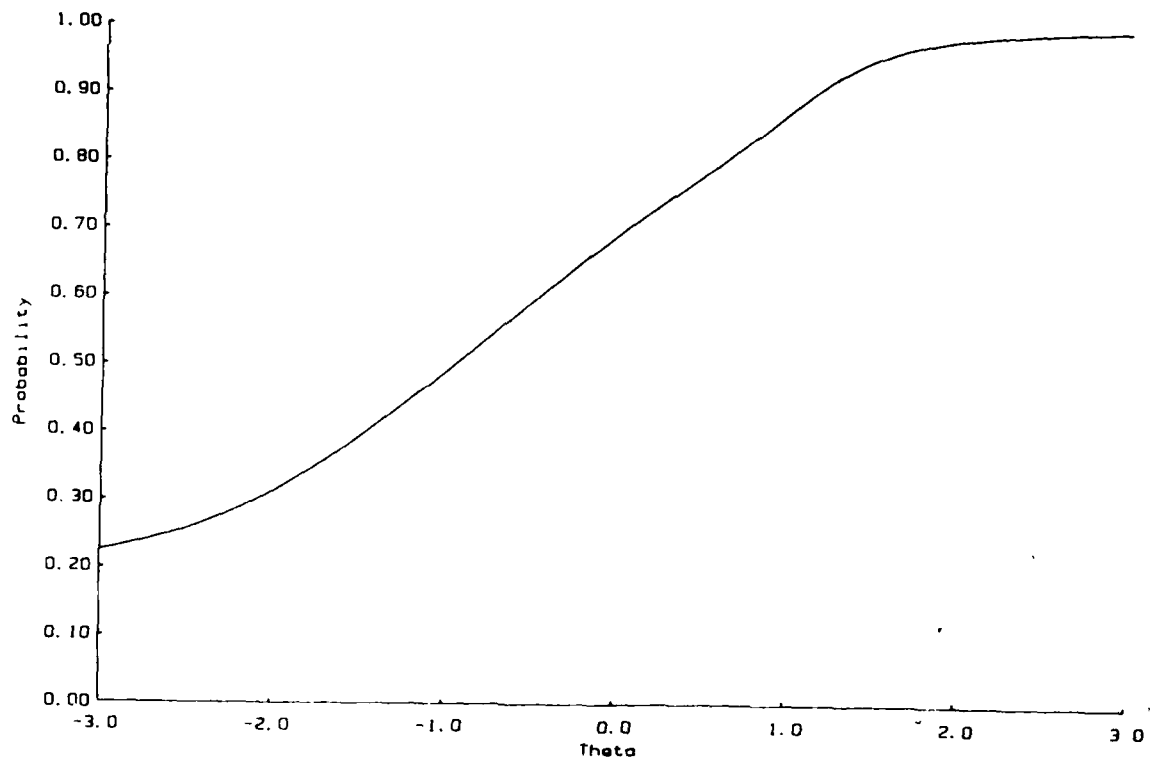


Figure 8-60. Test Characteristic Curve for General Science Subtest on ASVAB Form 12b (Male Sample).

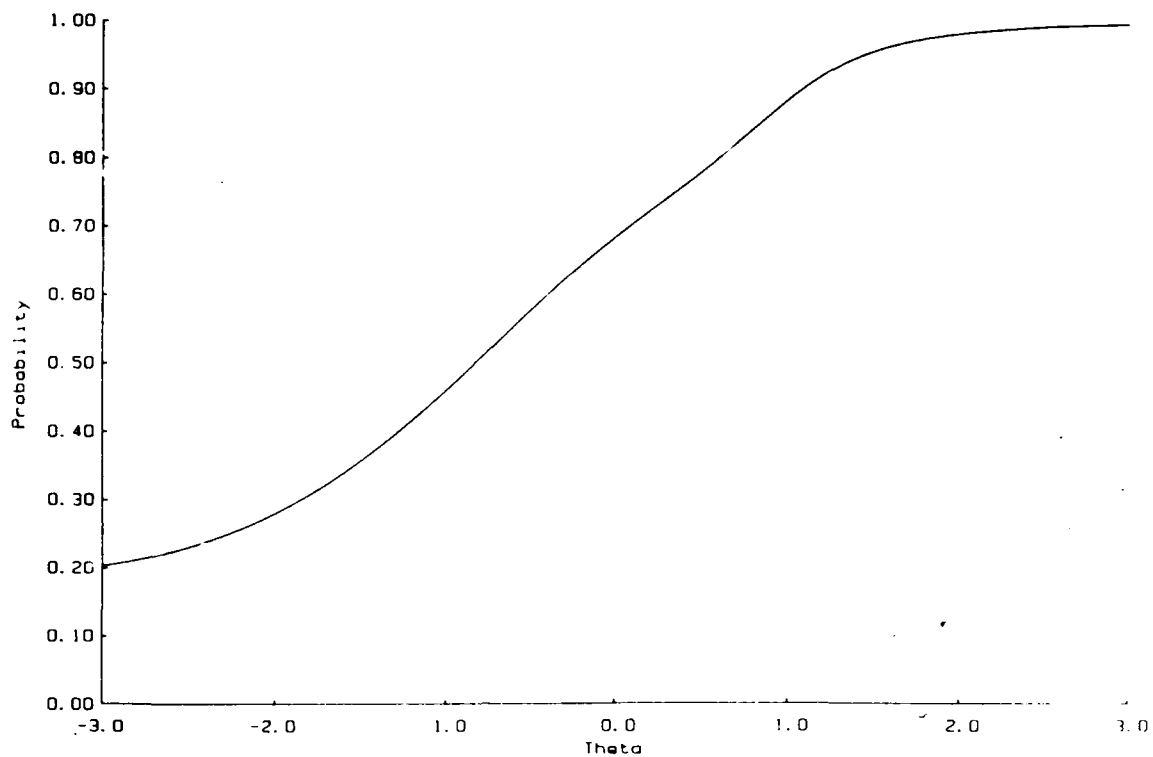


Figure 8-61. Test Characteristic Curve for General Science Subtest on ASVAB Form 13a (Male Sample).

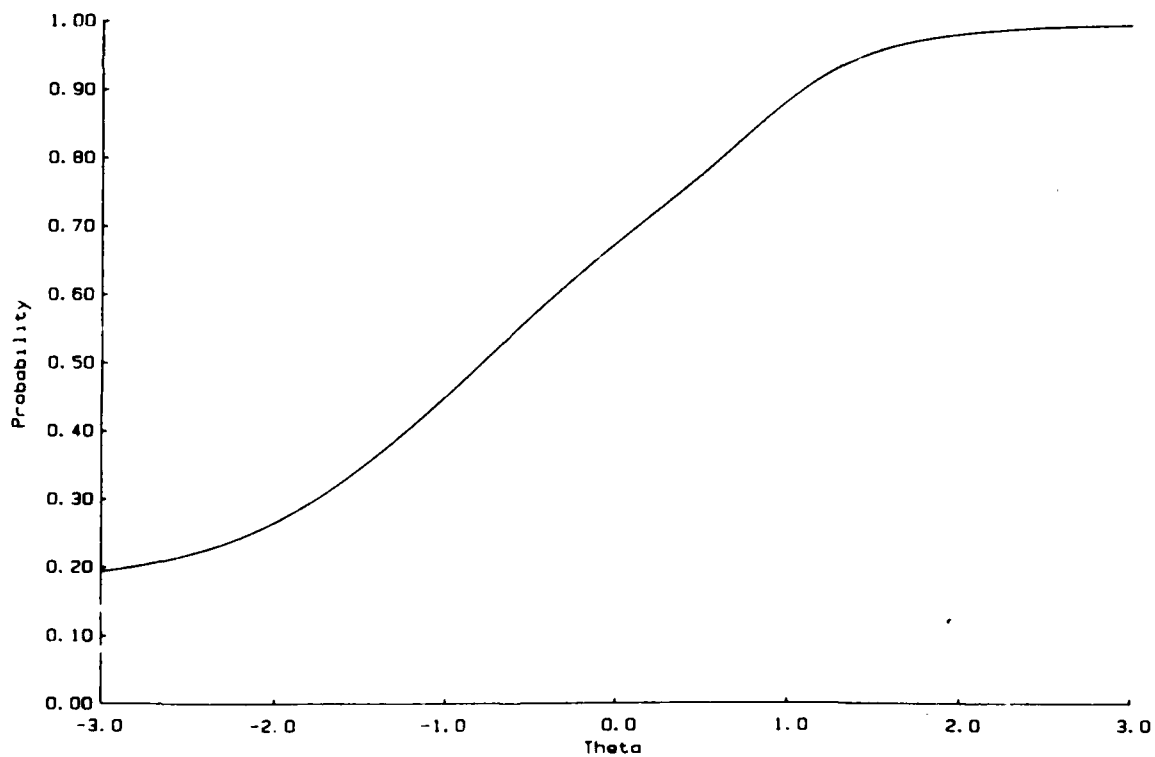


Figure 8-62. Test Characteristic Curve for General Science Subtest on ASVAB Form 13b (Male Sample).

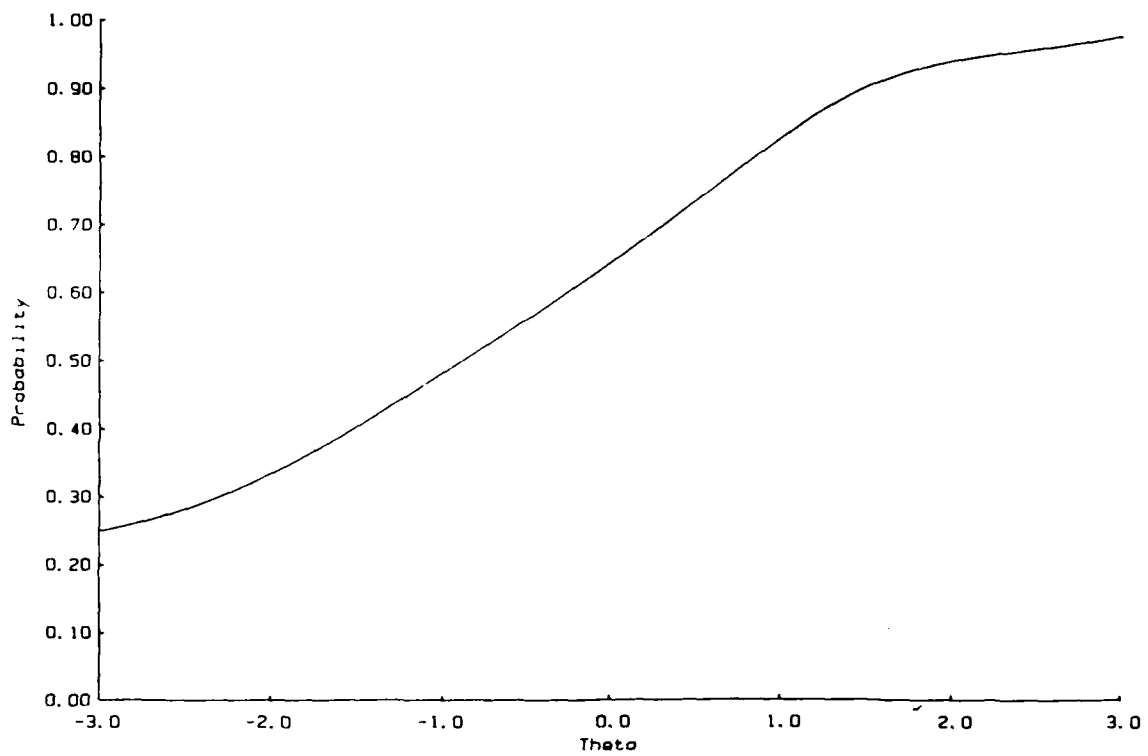


Figure B-63. Test Characteristic Curve for General Science Subtest on ASVAB Form 13c (Male Sample).

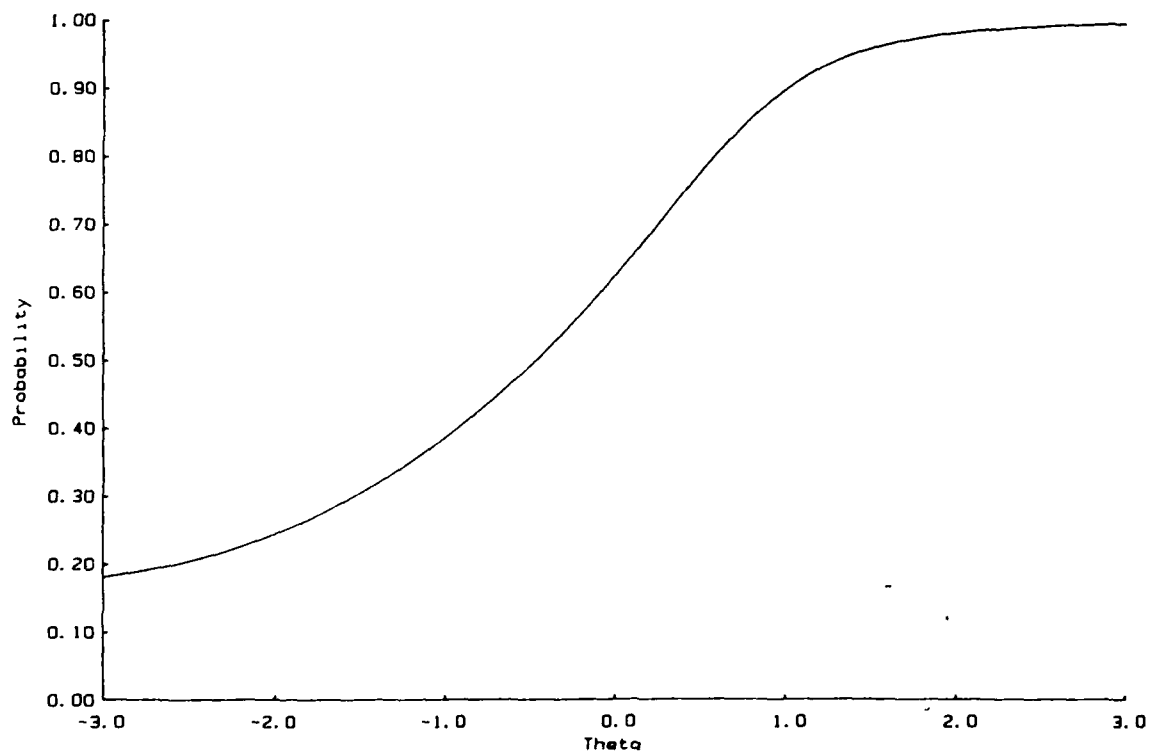


Figure B-64. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 11a (Male Sample).

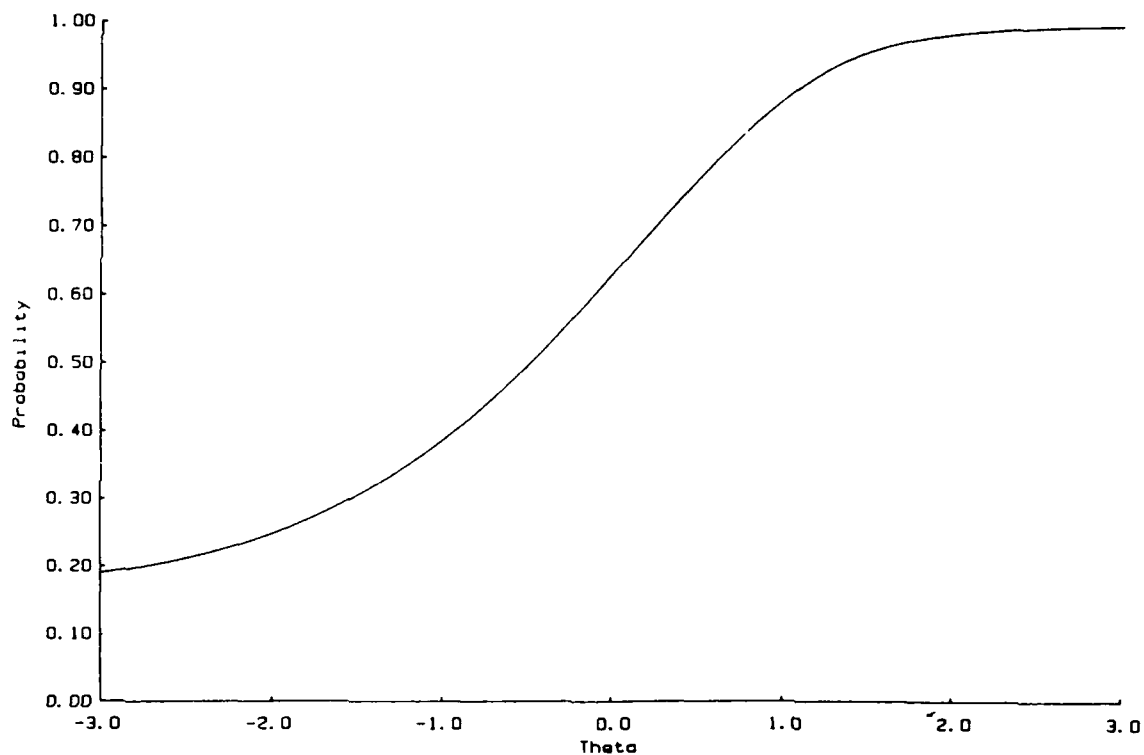


Figure 8-65. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 11b (Male Sample).

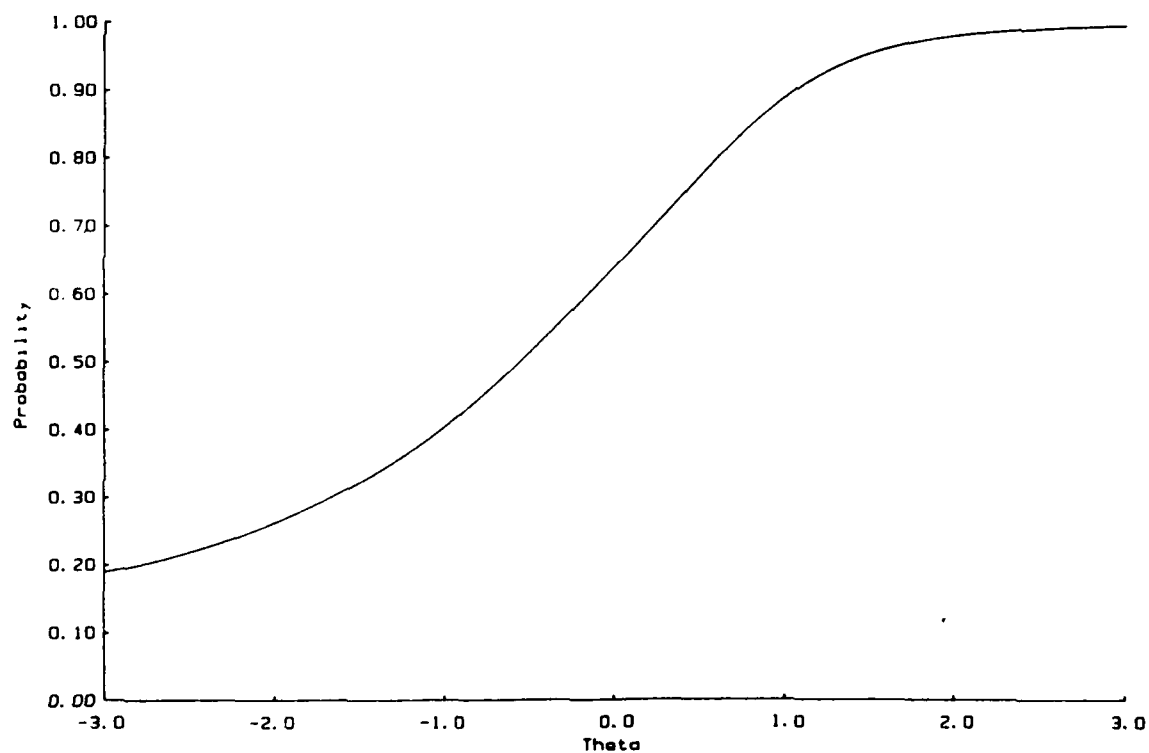


Figure 8-66. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 12a (Male Sample).

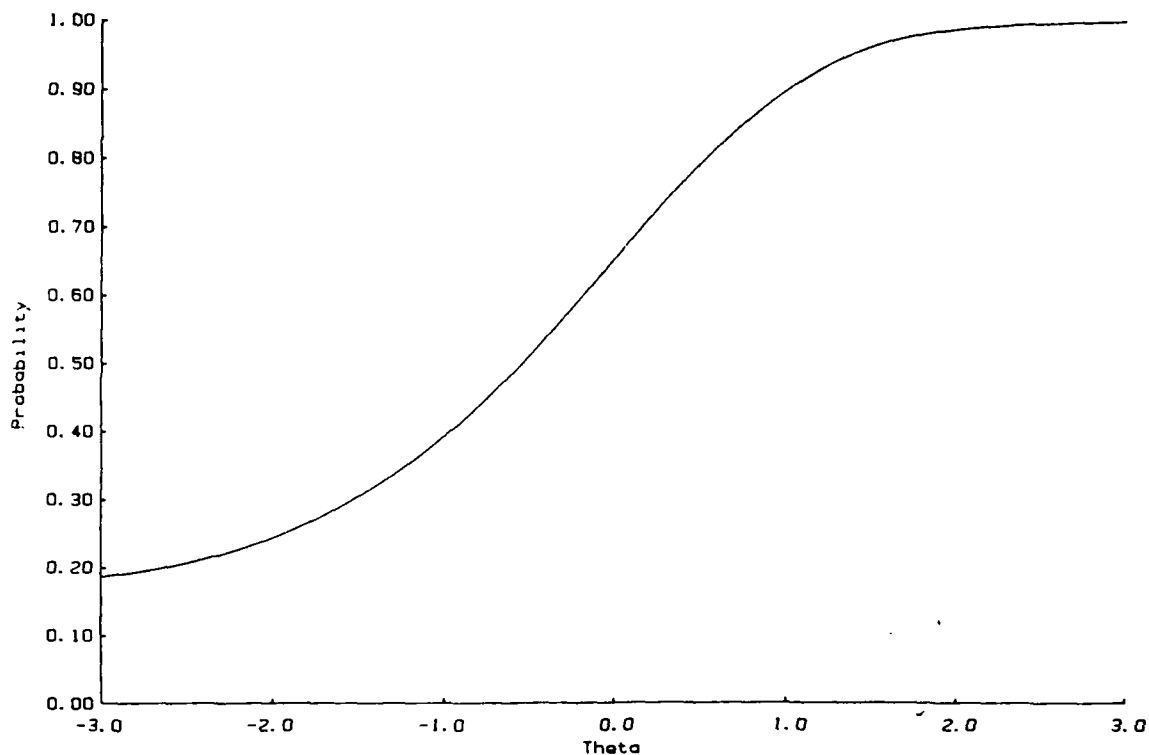


Figure B-67. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 12b (Male Sample).

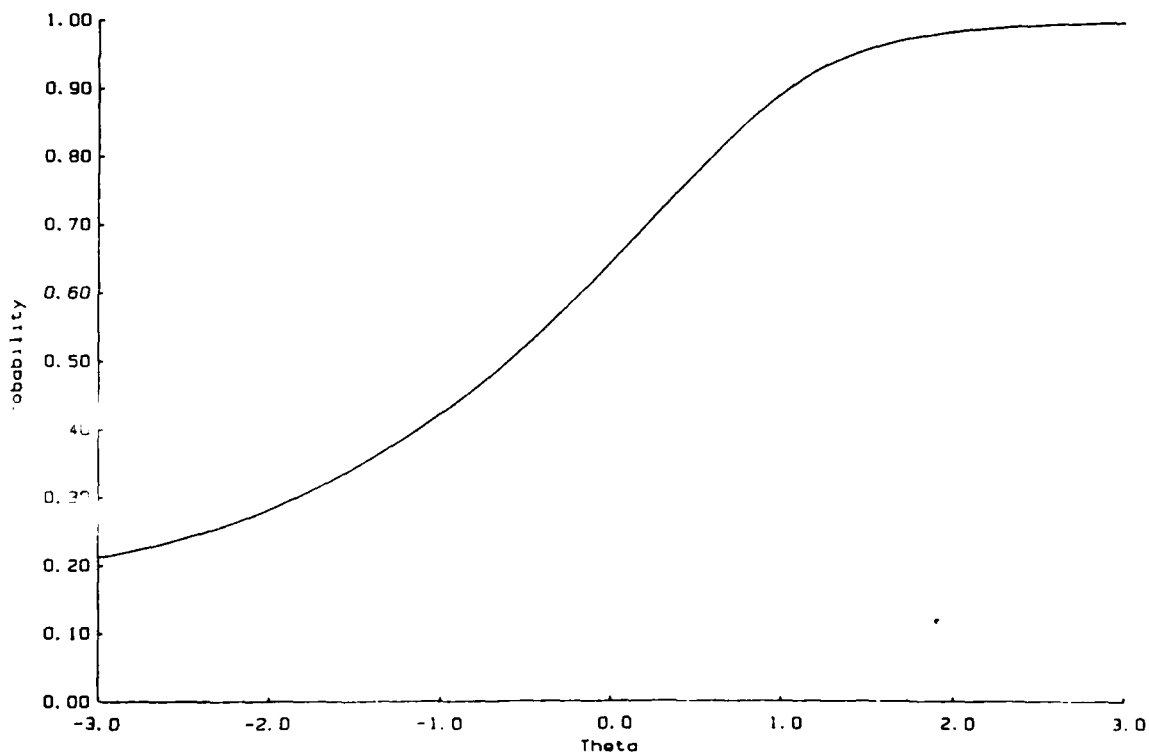


Figure B-68. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13a (Male Sample).

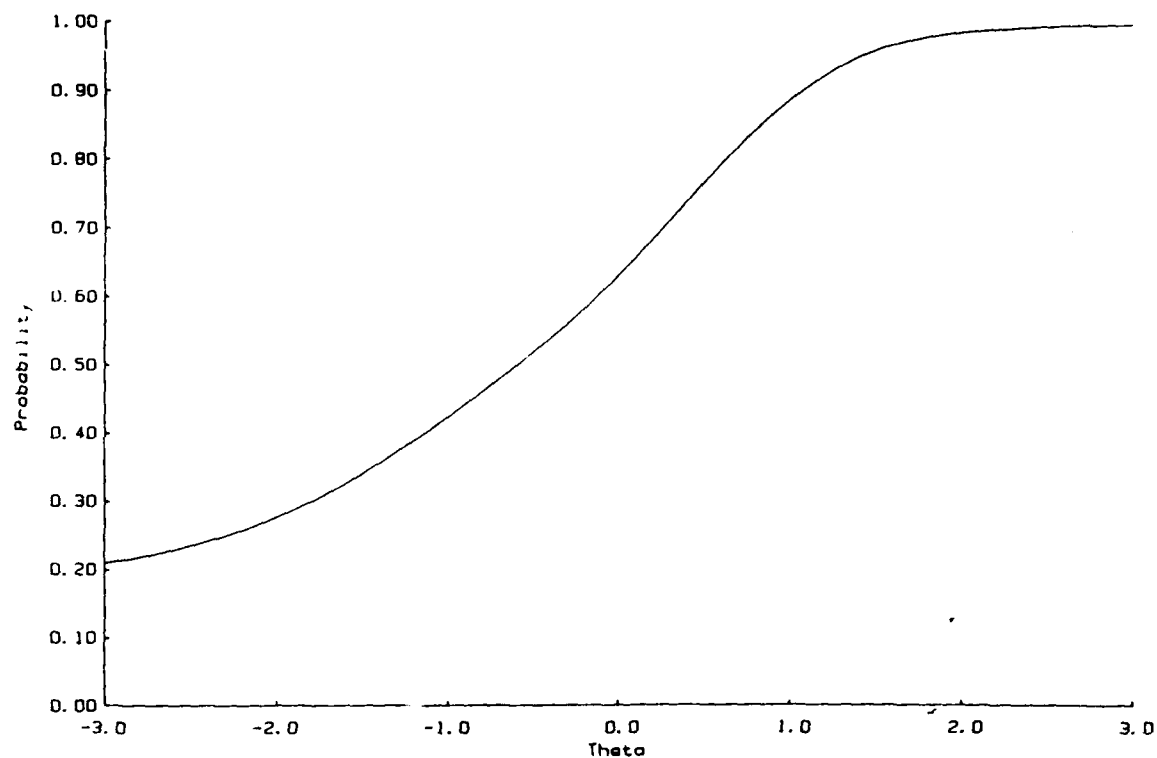


Figure B-69. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13b (Male Sample).

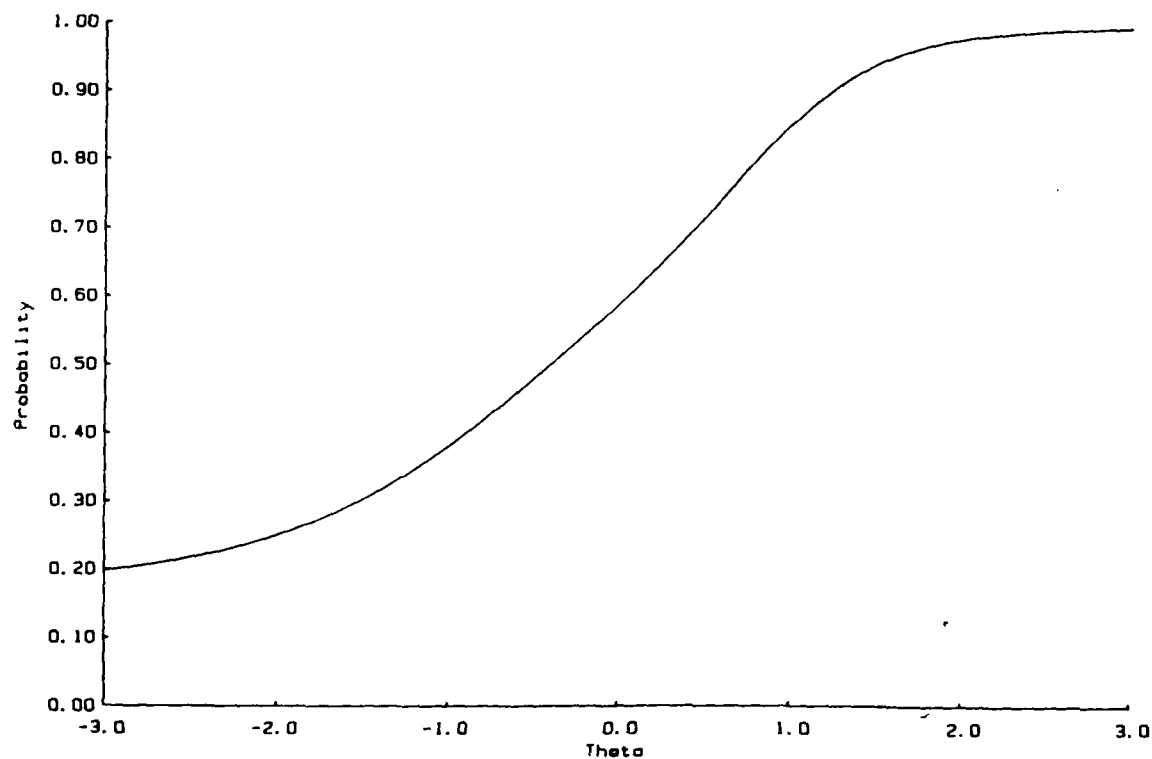


Figure B-70. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13c (Male Sample).

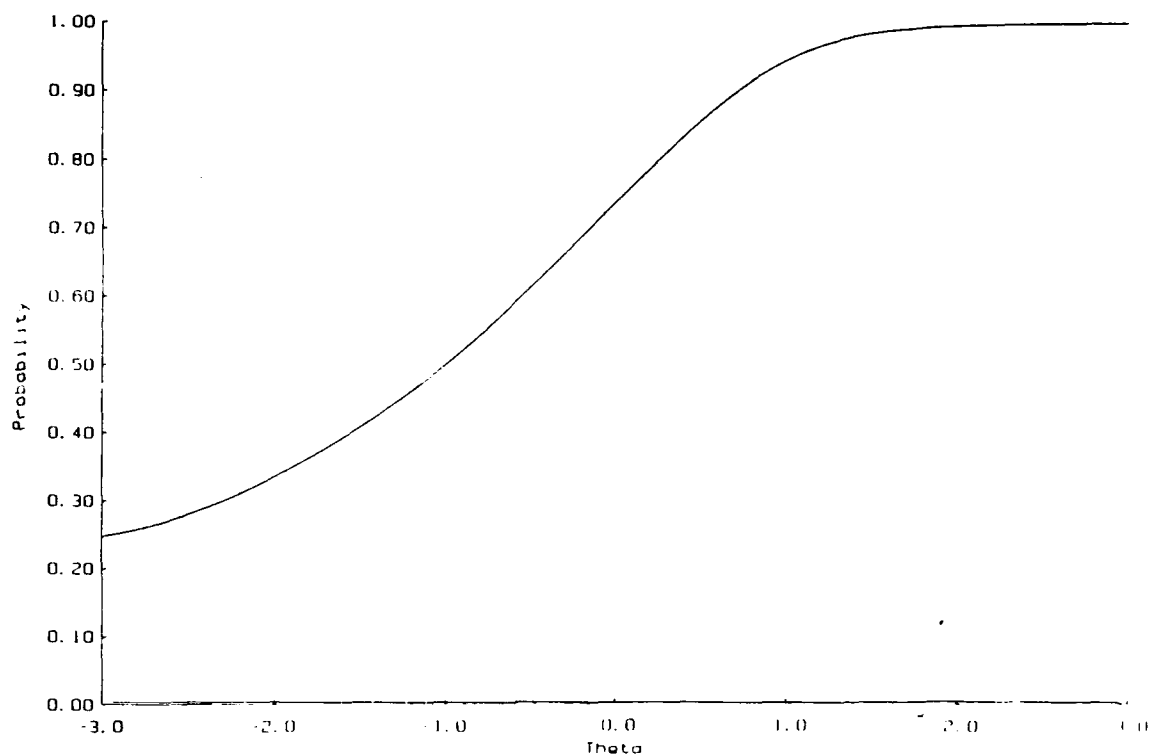


Figure B-71. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 11a (Male Sample).

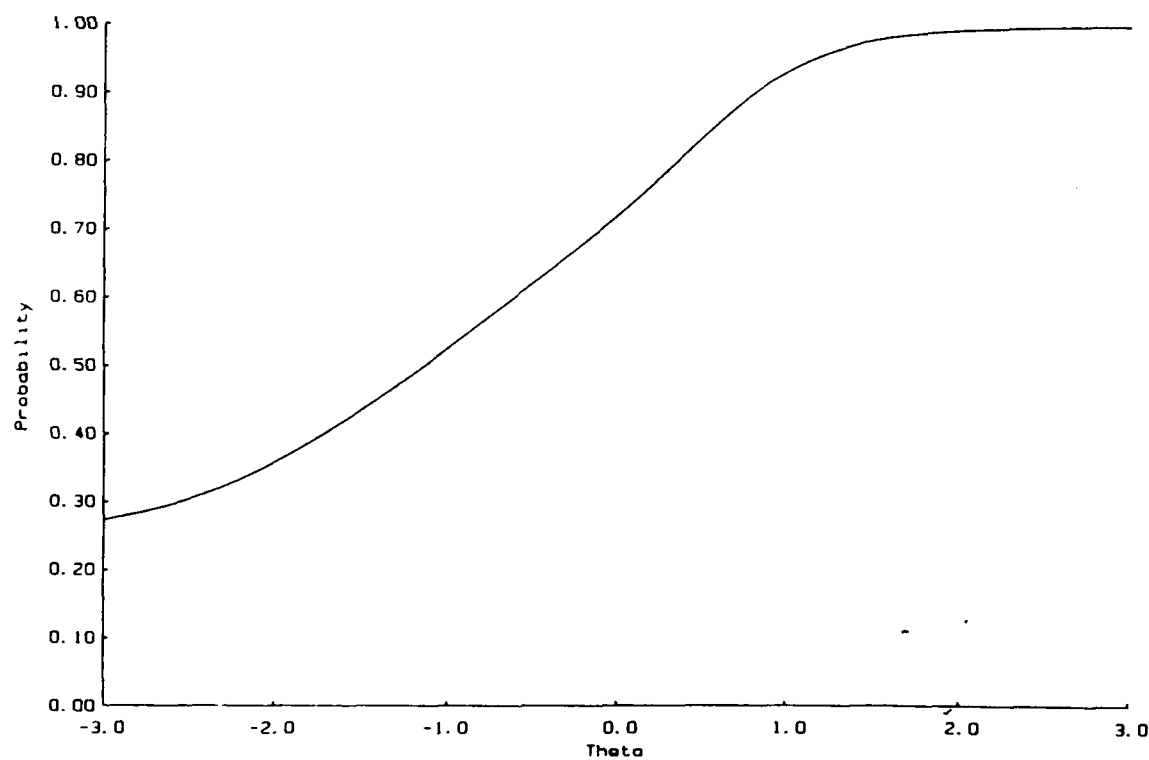


Figure B-72. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 11b (Male Sample).

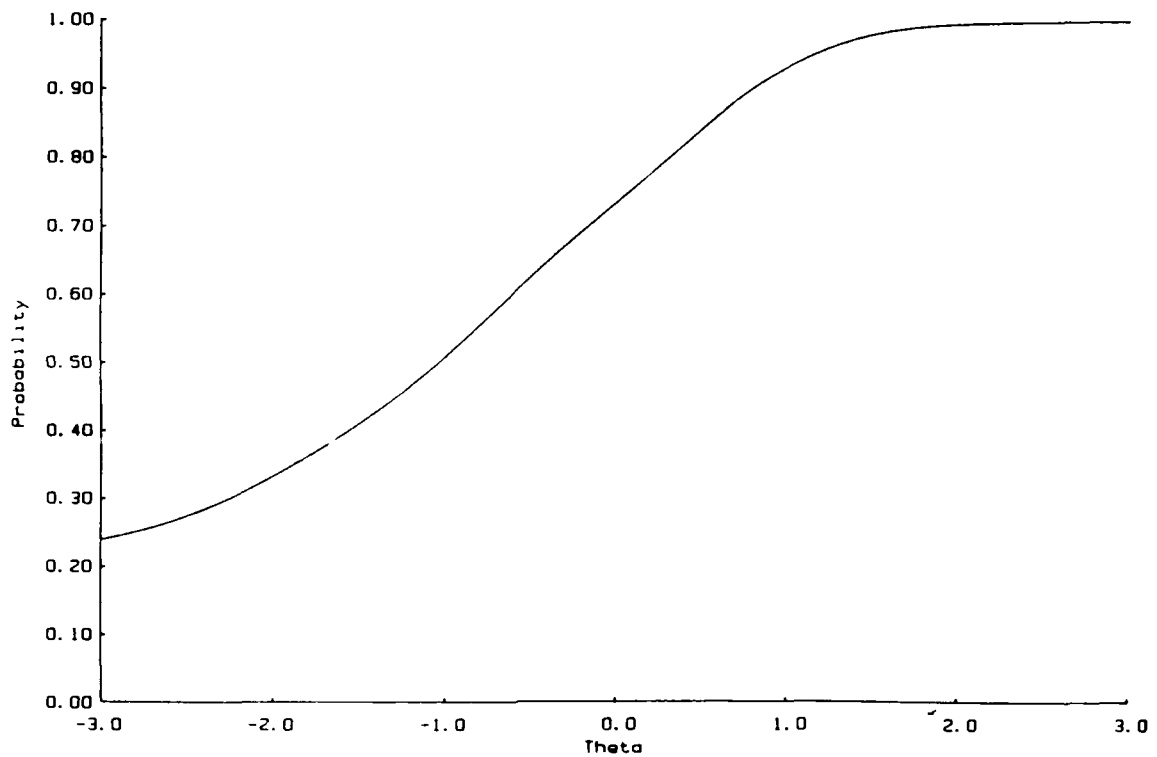


Figure B-73. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 12a (Male Sample).

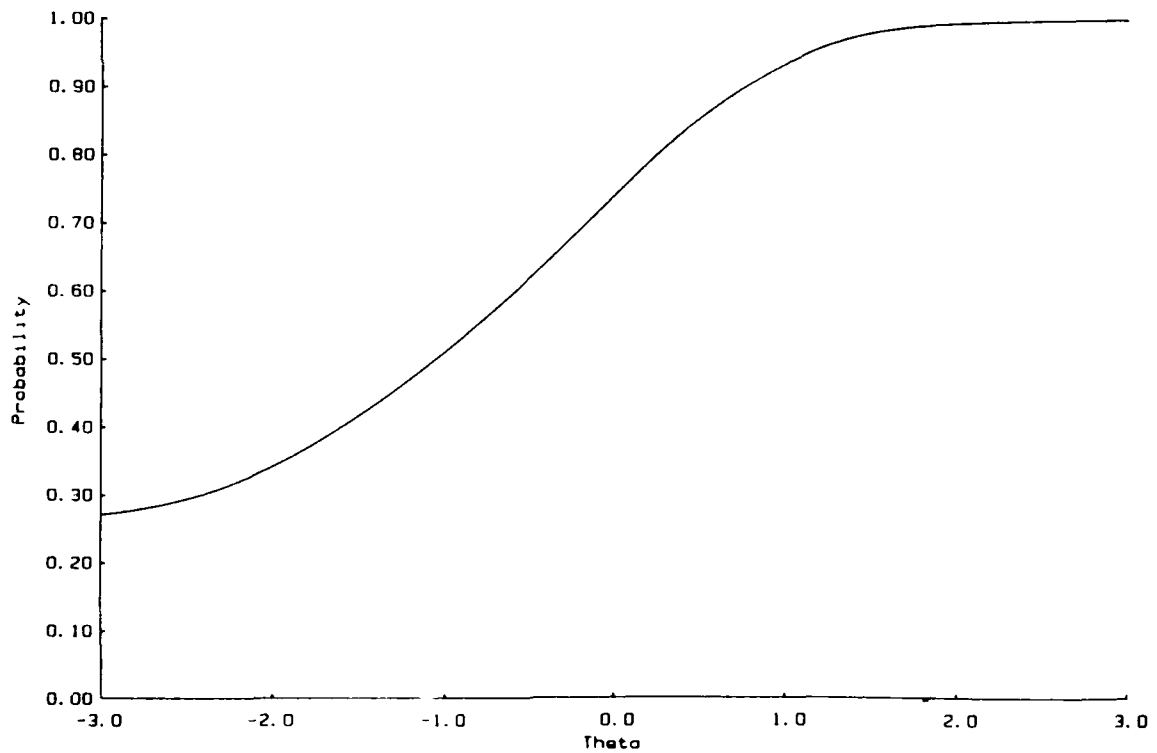


Figure B-74. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 12b (Male Sample).



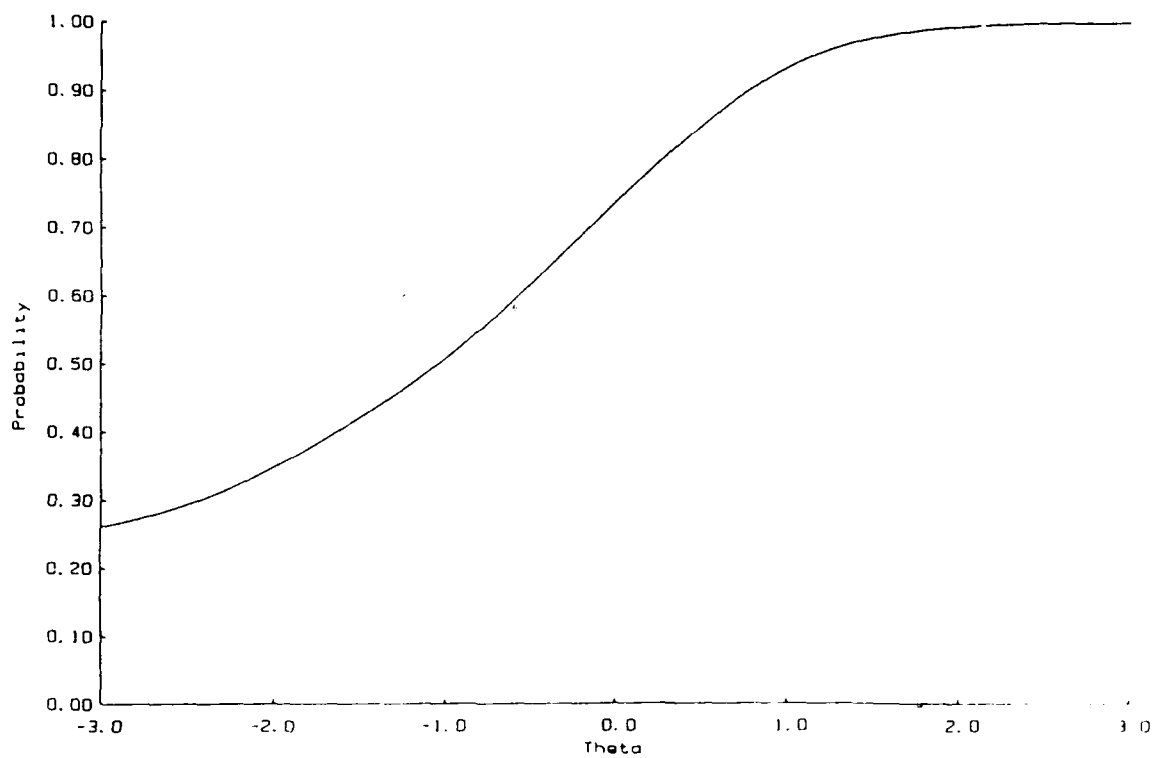


Figure B-75. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13a (Male Sample).

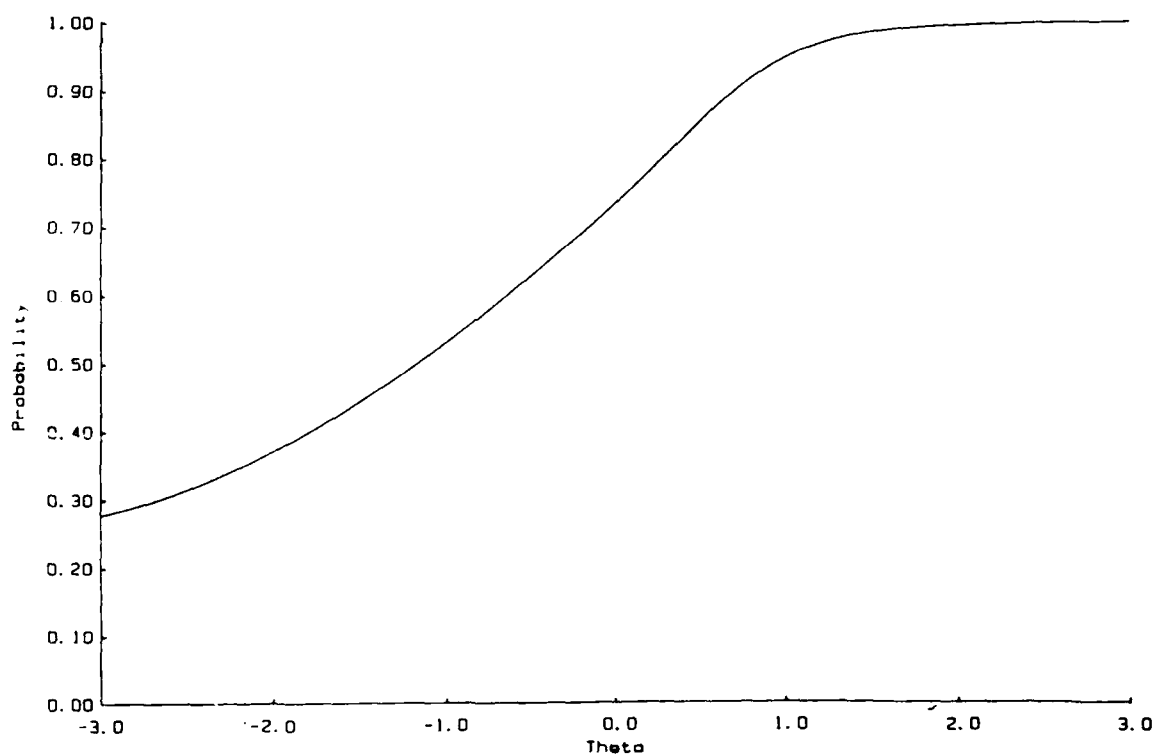


Figure B-76. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13b (Male Sample).

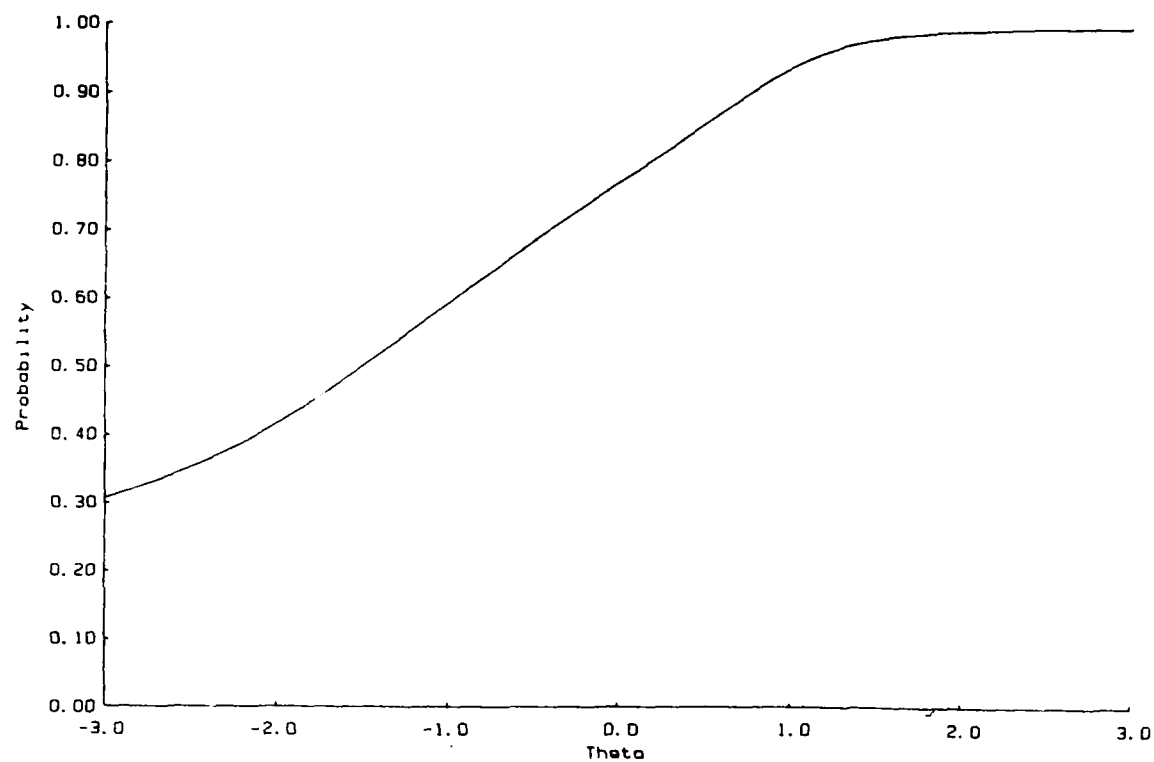


Figure B-77. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13c (Male Sample).

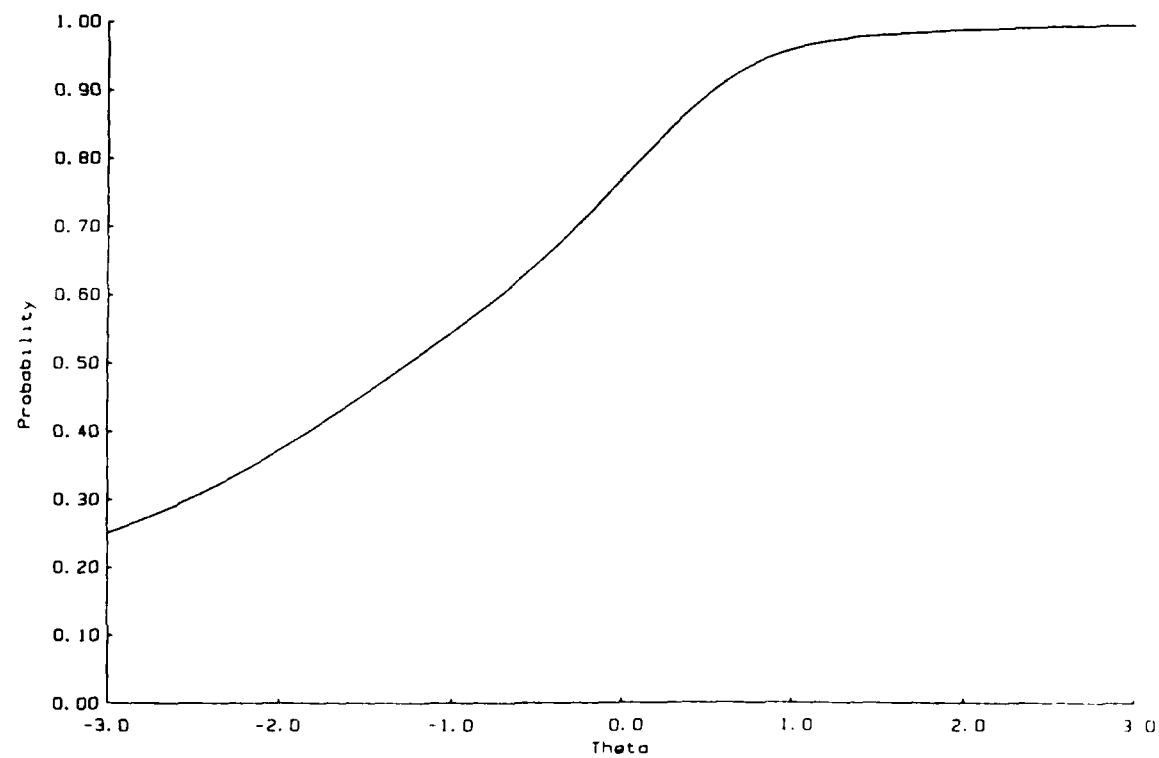


Figure B-78. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 11a (Male Sample).

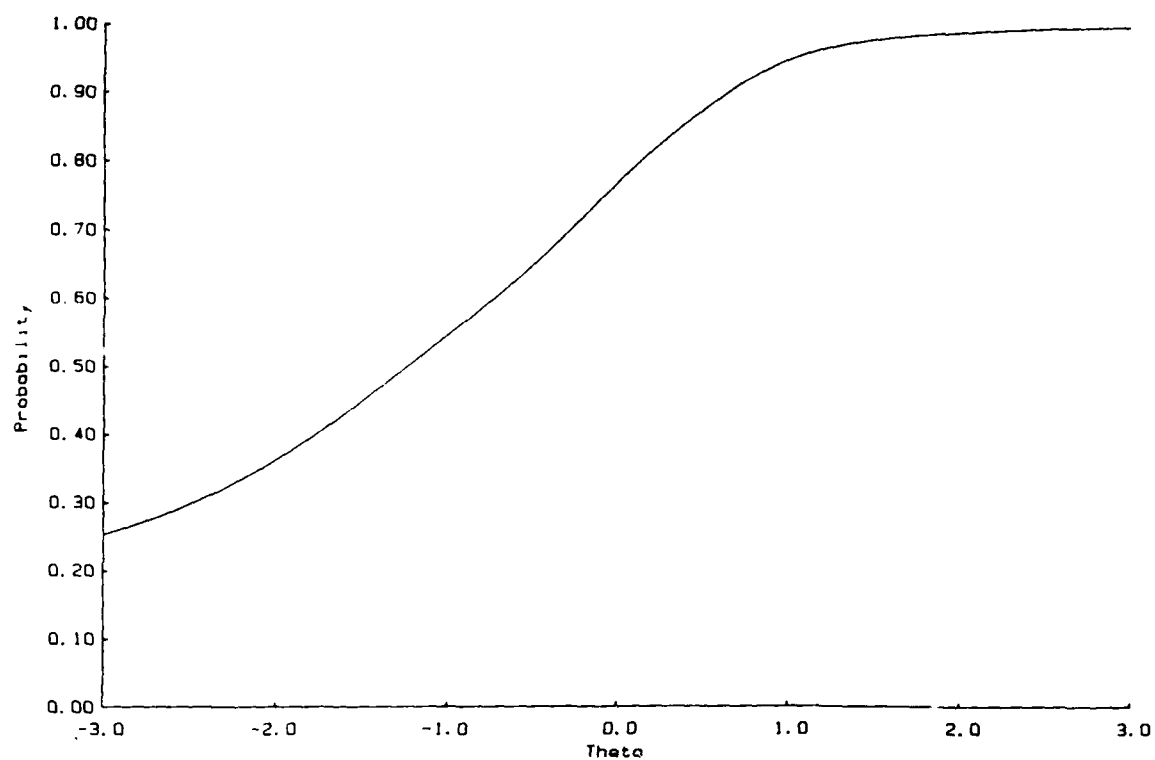


Figure 8-79. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 11b (Male Sample).

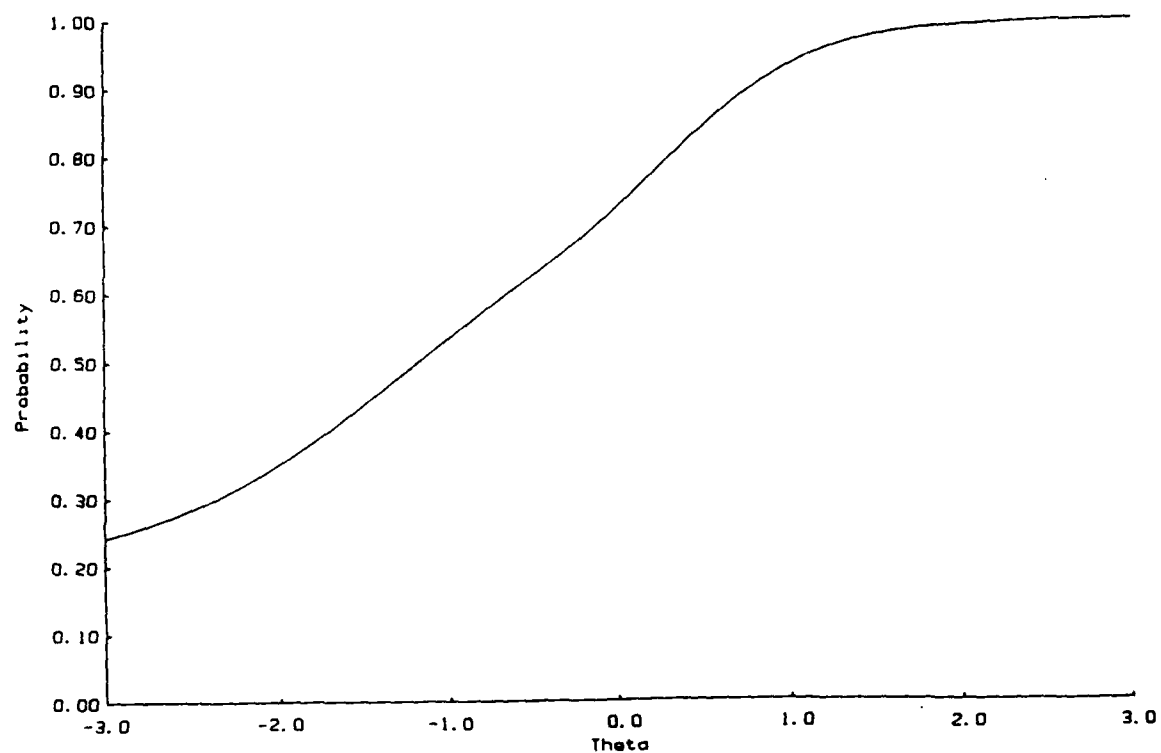


Figure 8-80. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 12a (Male Sample).

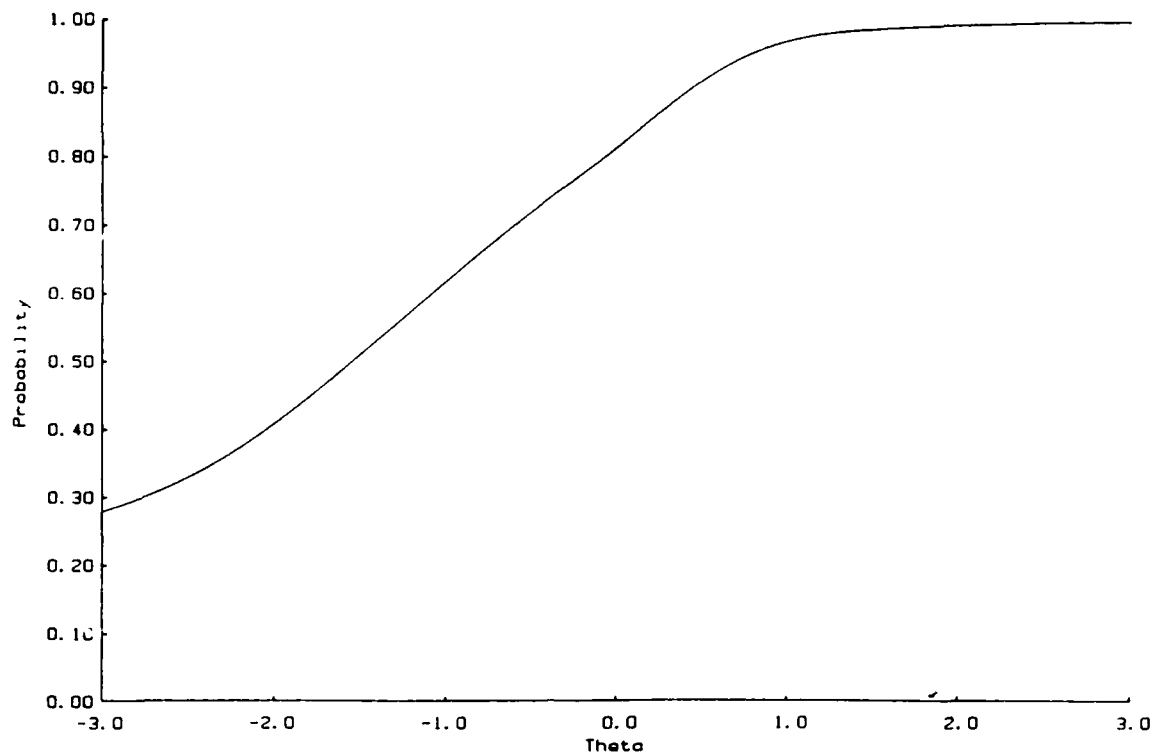


Figure B-81. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 12b (Male Sample).

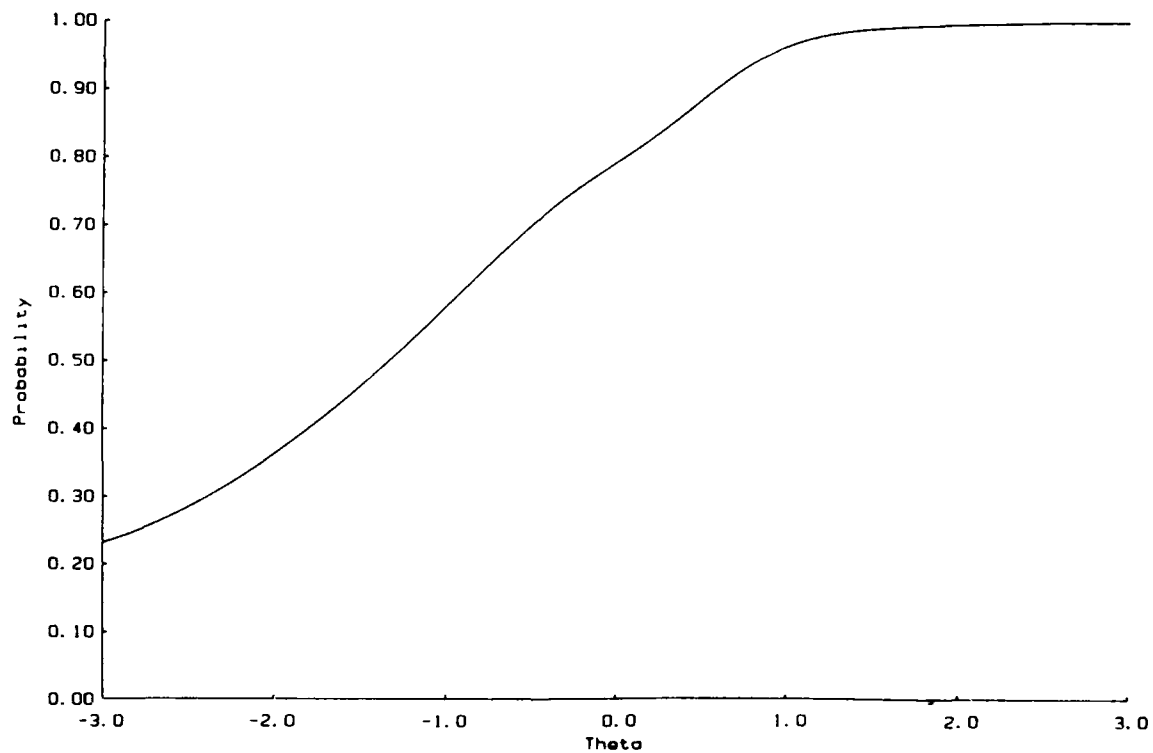


Figure B-82. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13a (Male Sample).

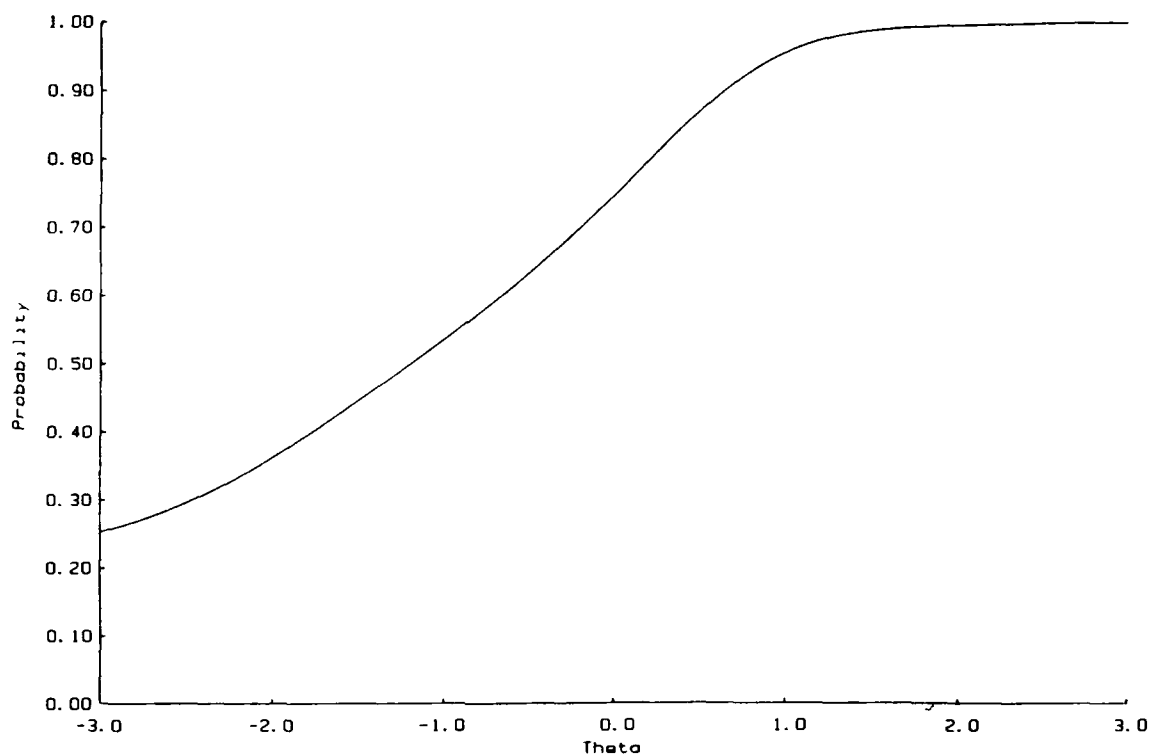


Figure 8-83. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13b (Male Sample).

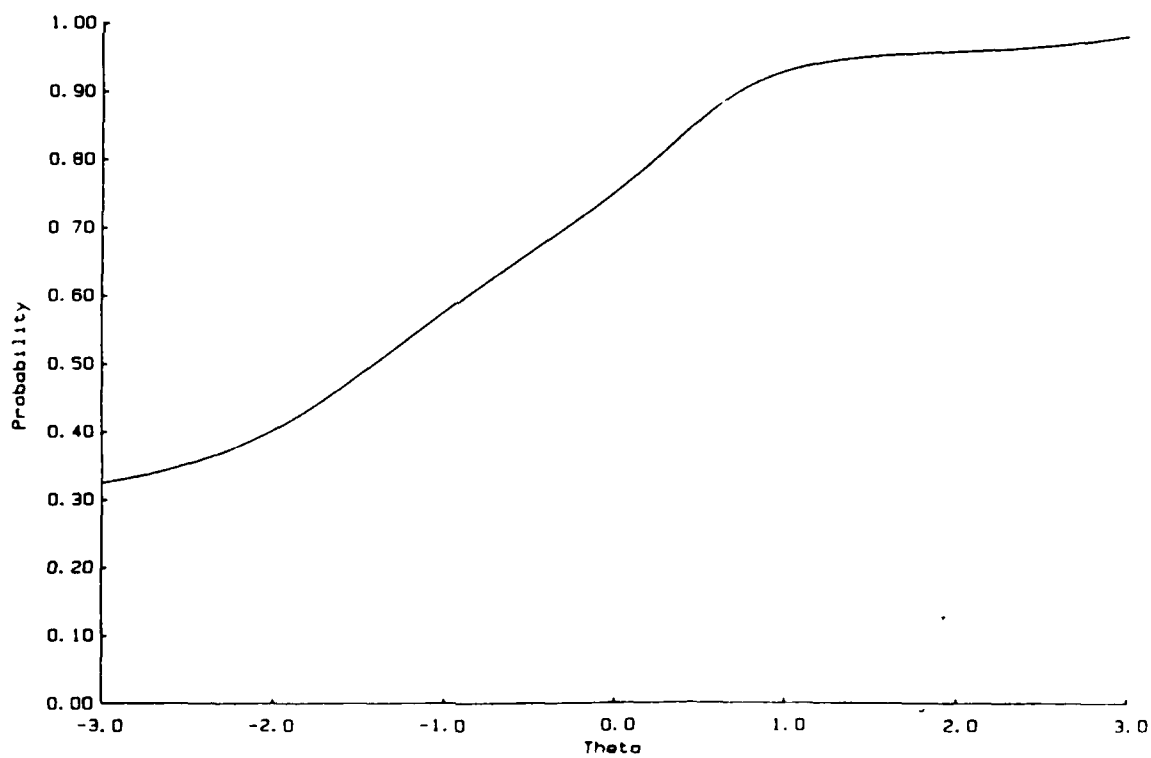


Figure 8-84. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13c (Male Sample).

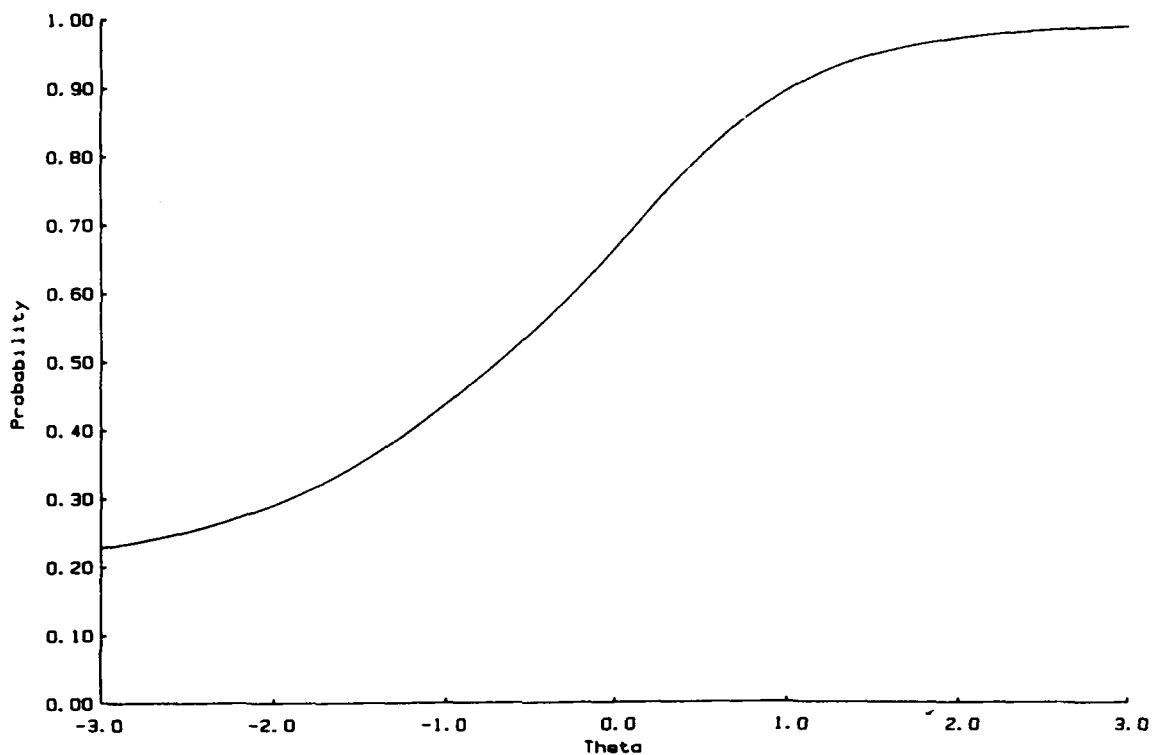


Figure B-85. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 11a (Male Sample).

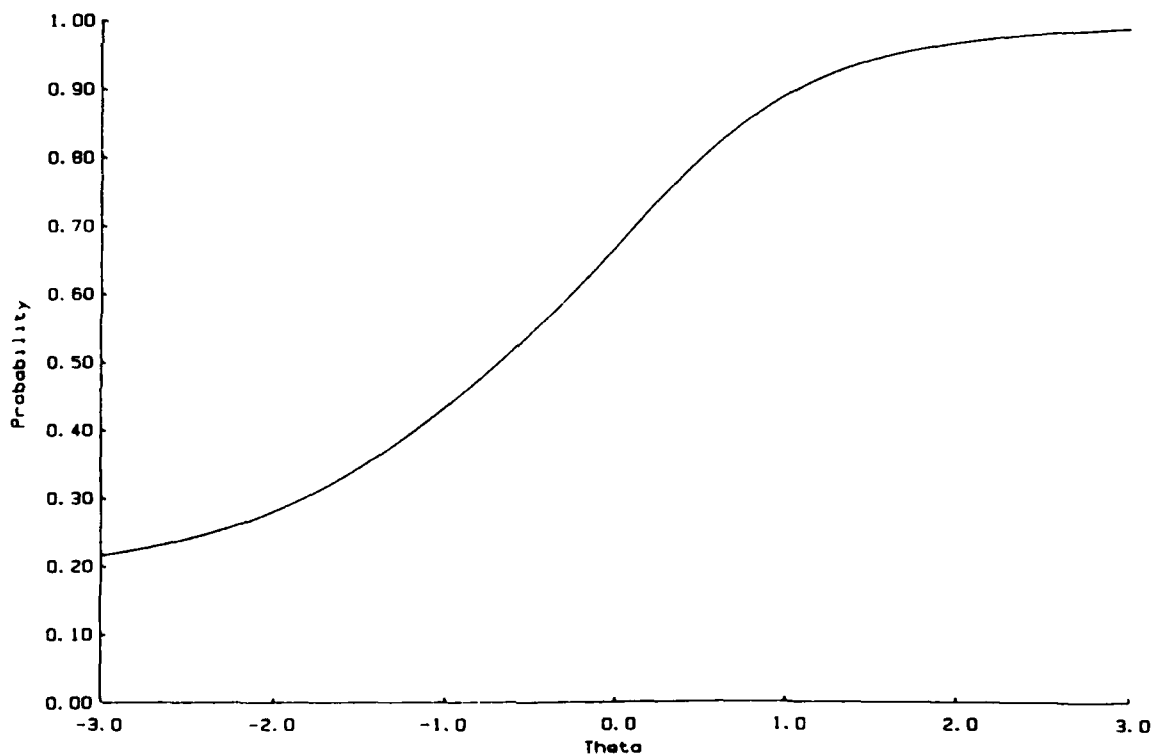


Figure B-86. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 11b (Male Sample).

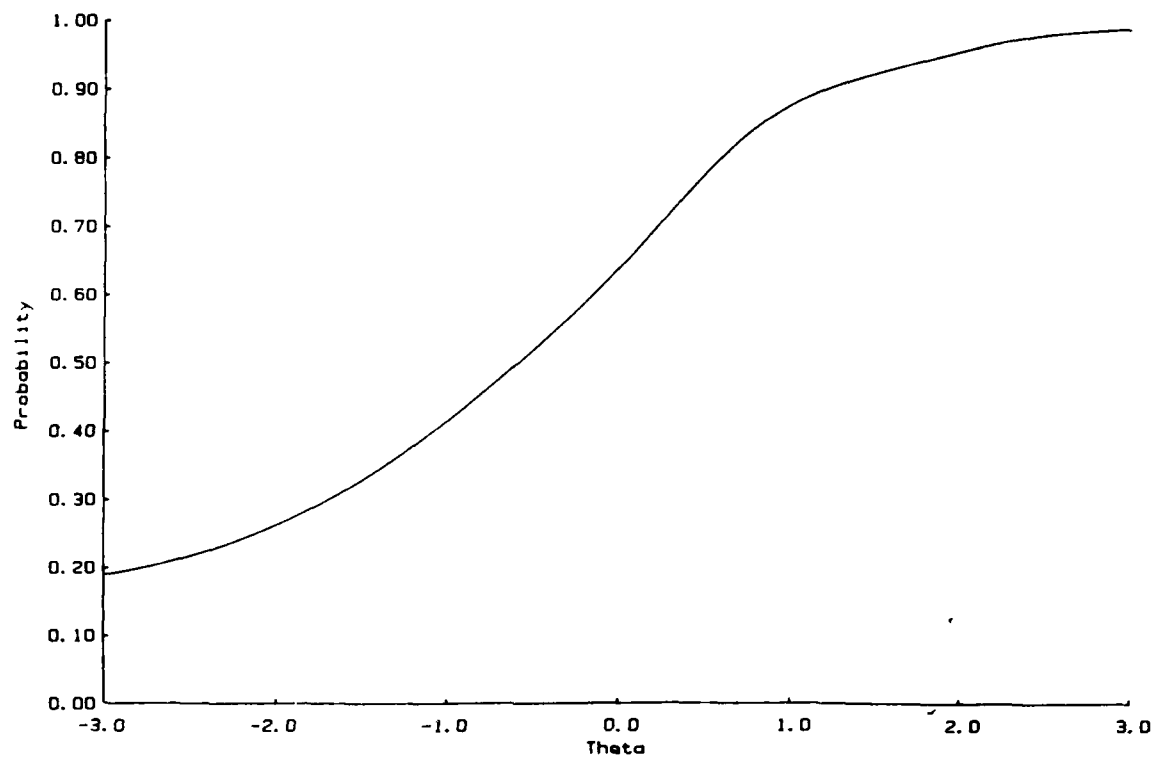


Figure B-87. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 12a (Male Sample).

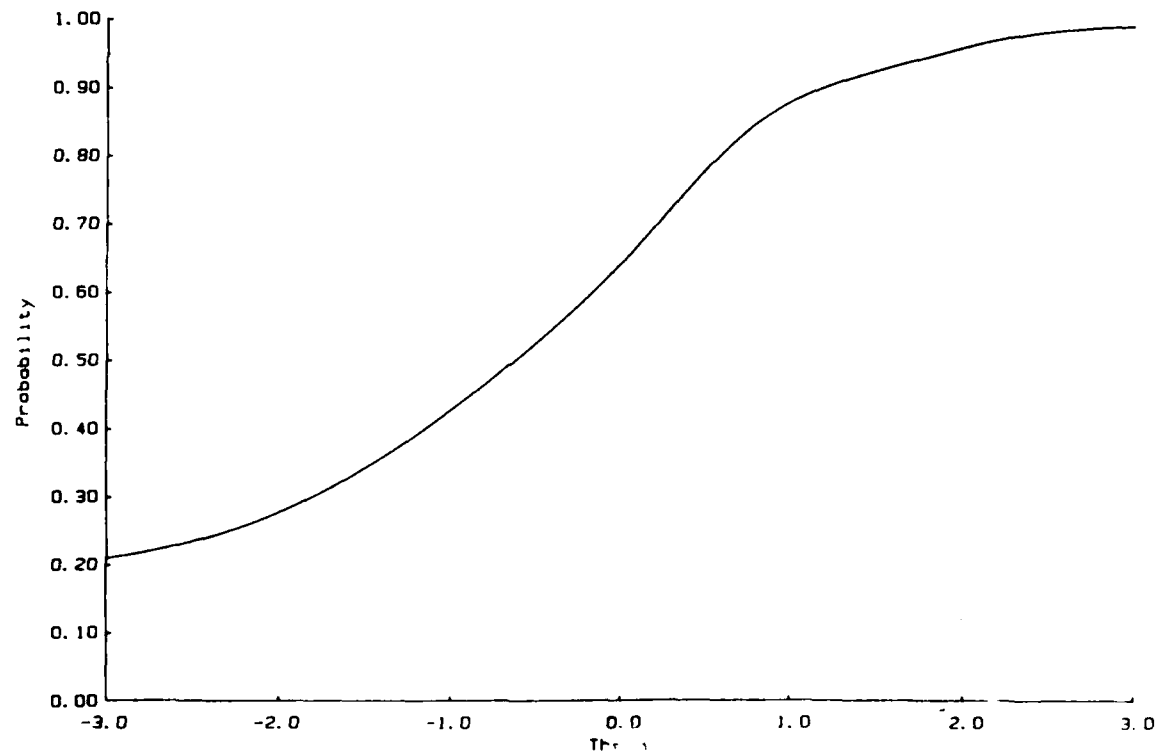


Figure B-88. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 12b (Male Sample).

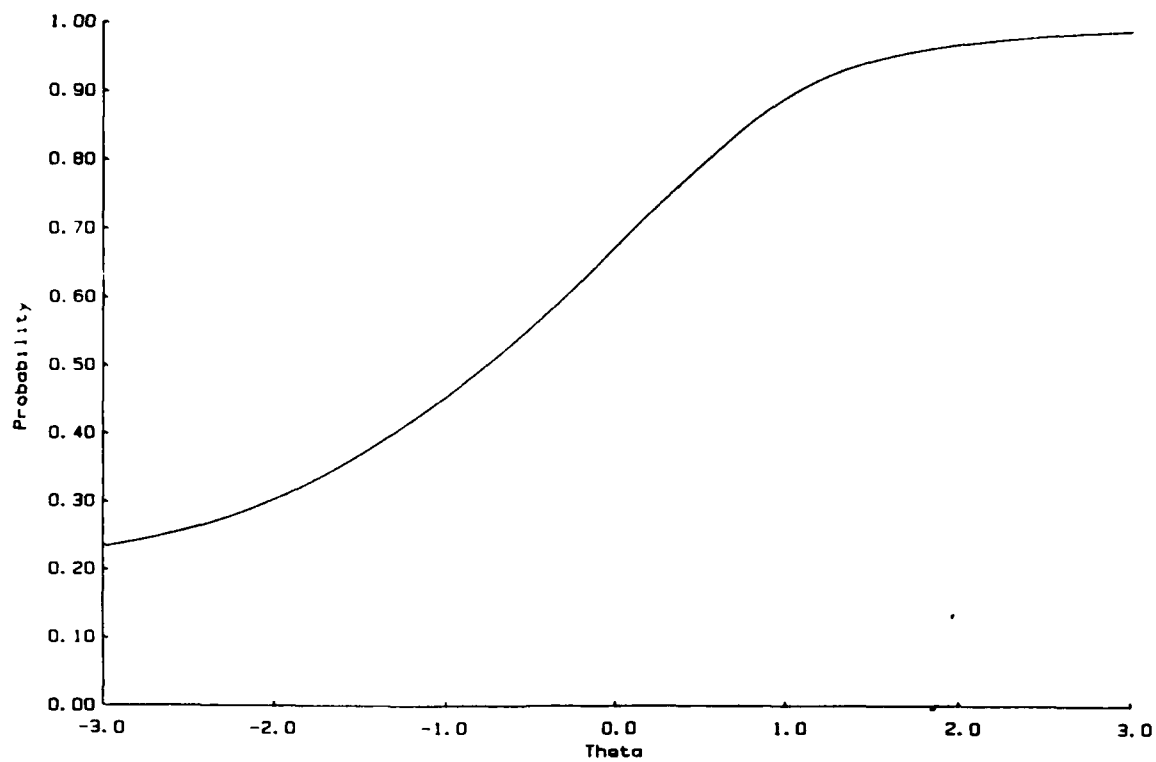


Figure 8-89. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13a (Male Sample).

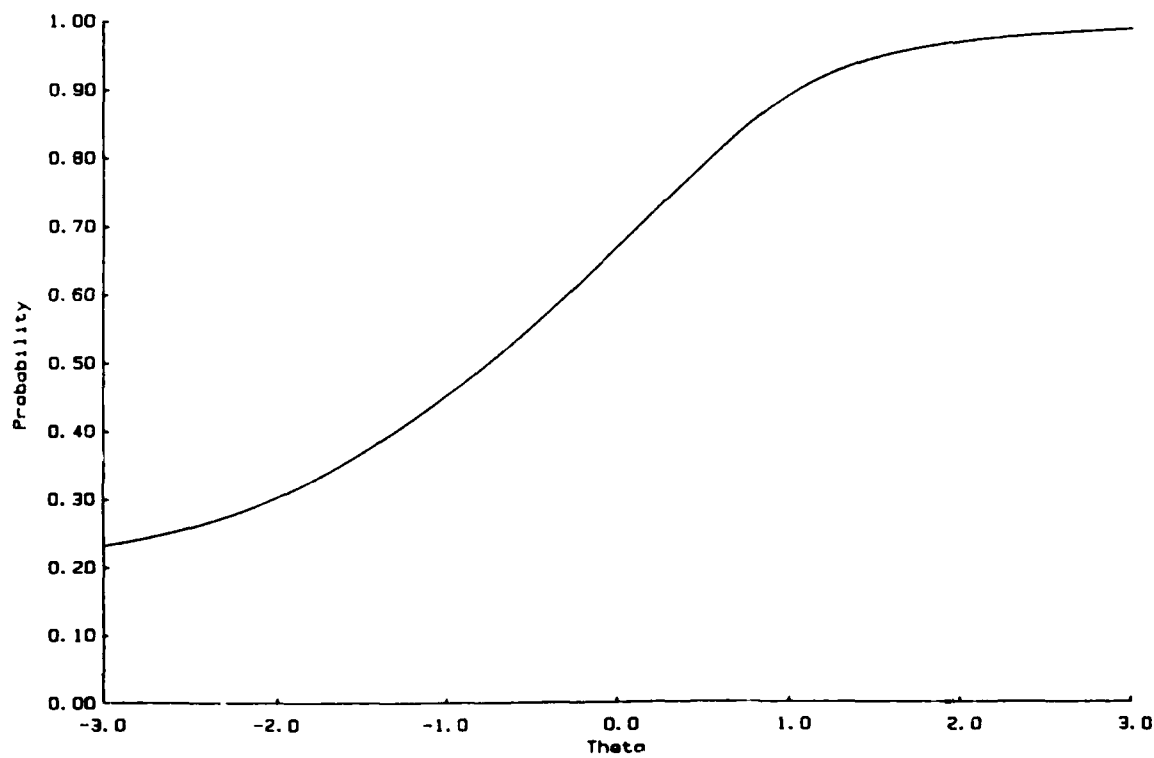


Figure 8-90. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13b (Male Sample).



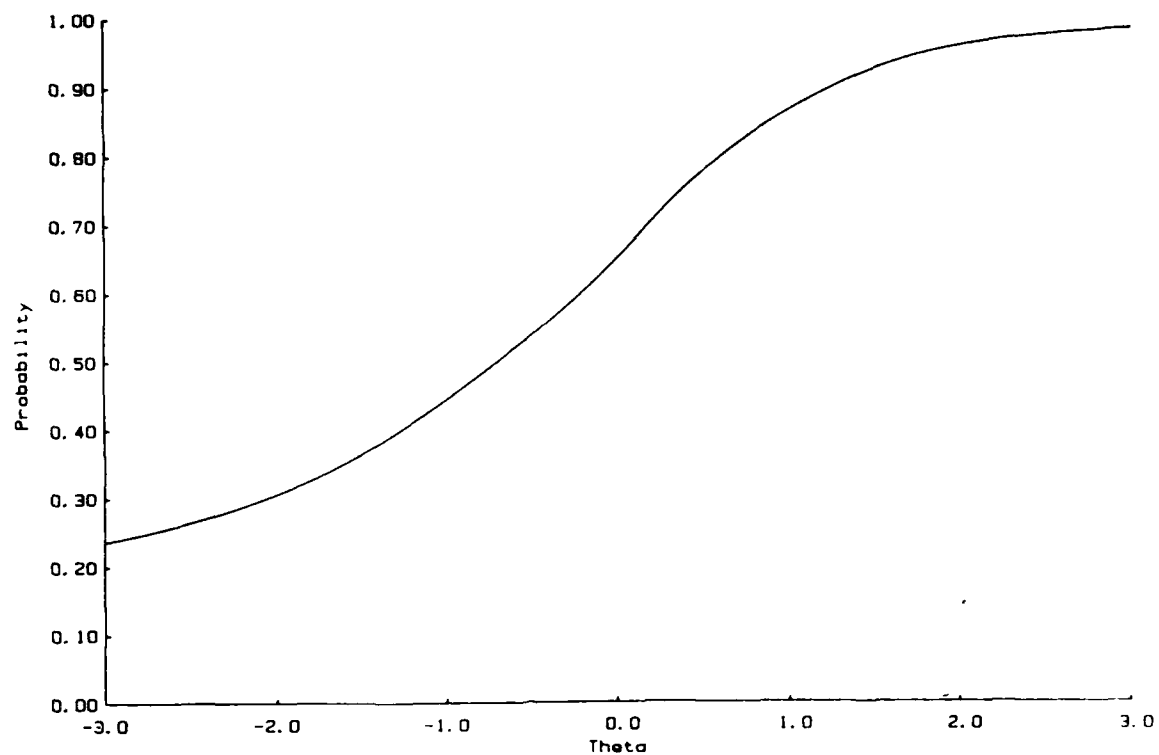


Figure B-91. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13c (Male Sample).

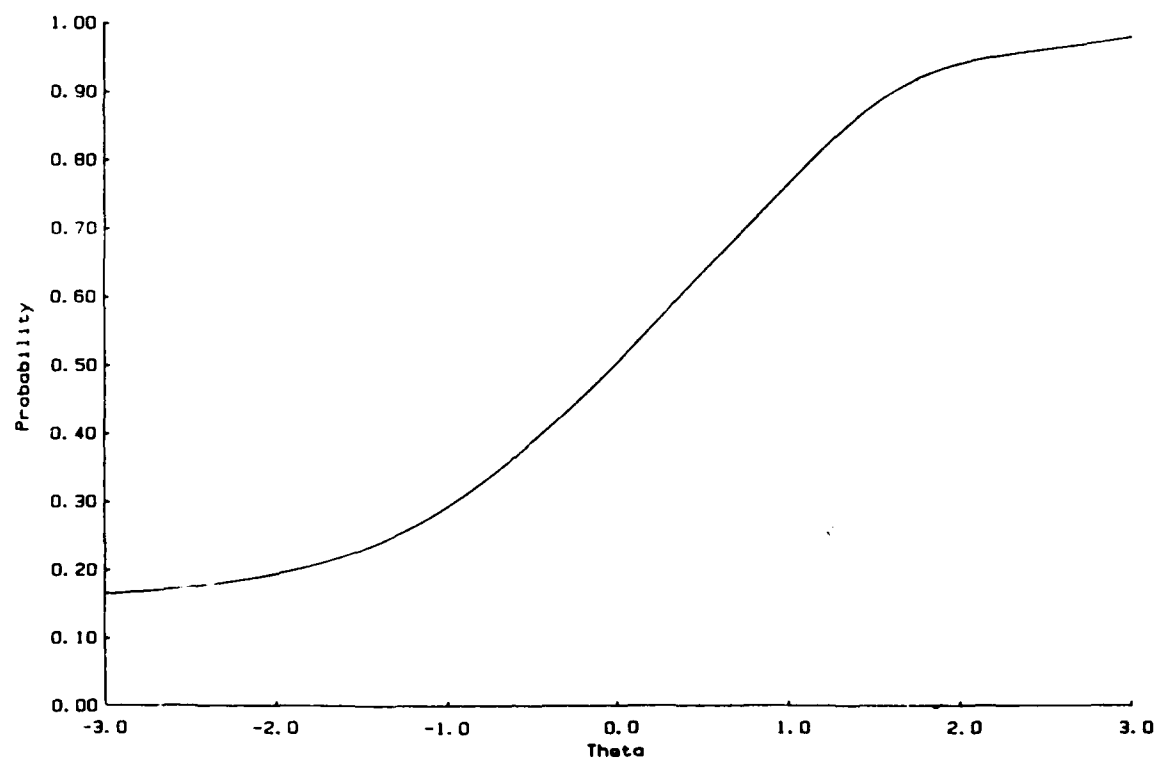


Figure B-92. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 11a (Male Sample).

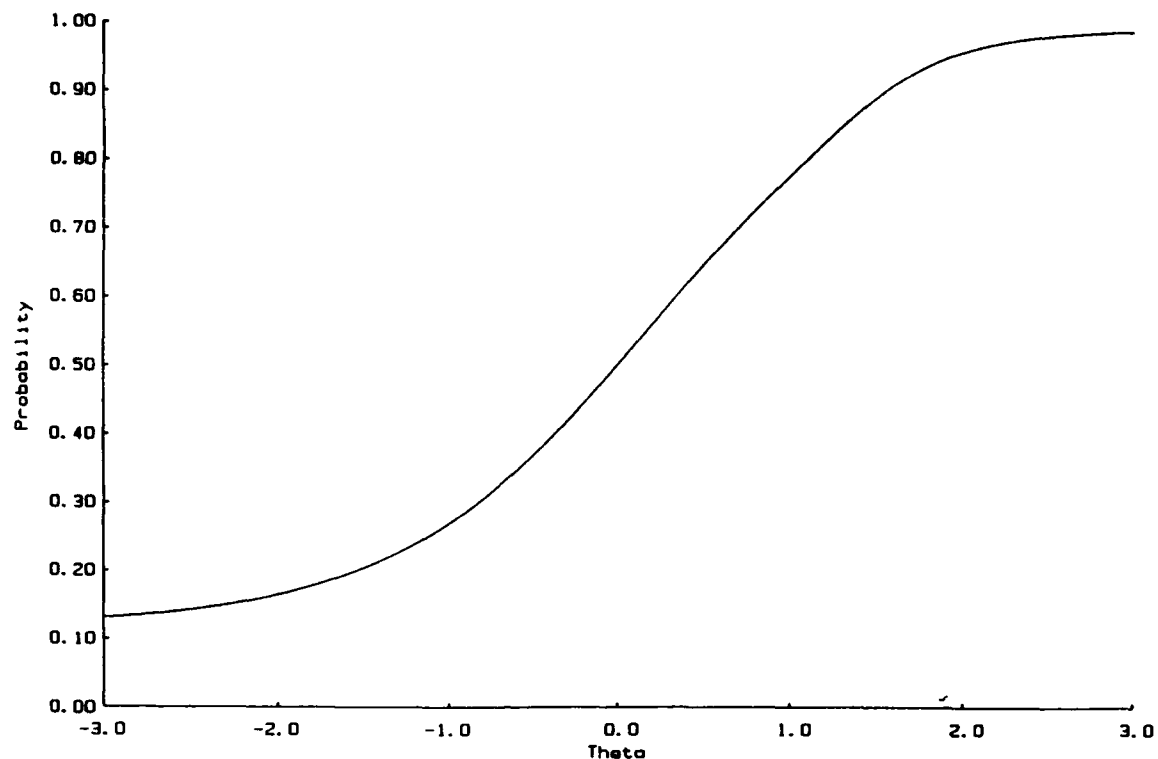


Figure 8-93. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 11b (Male Sample).

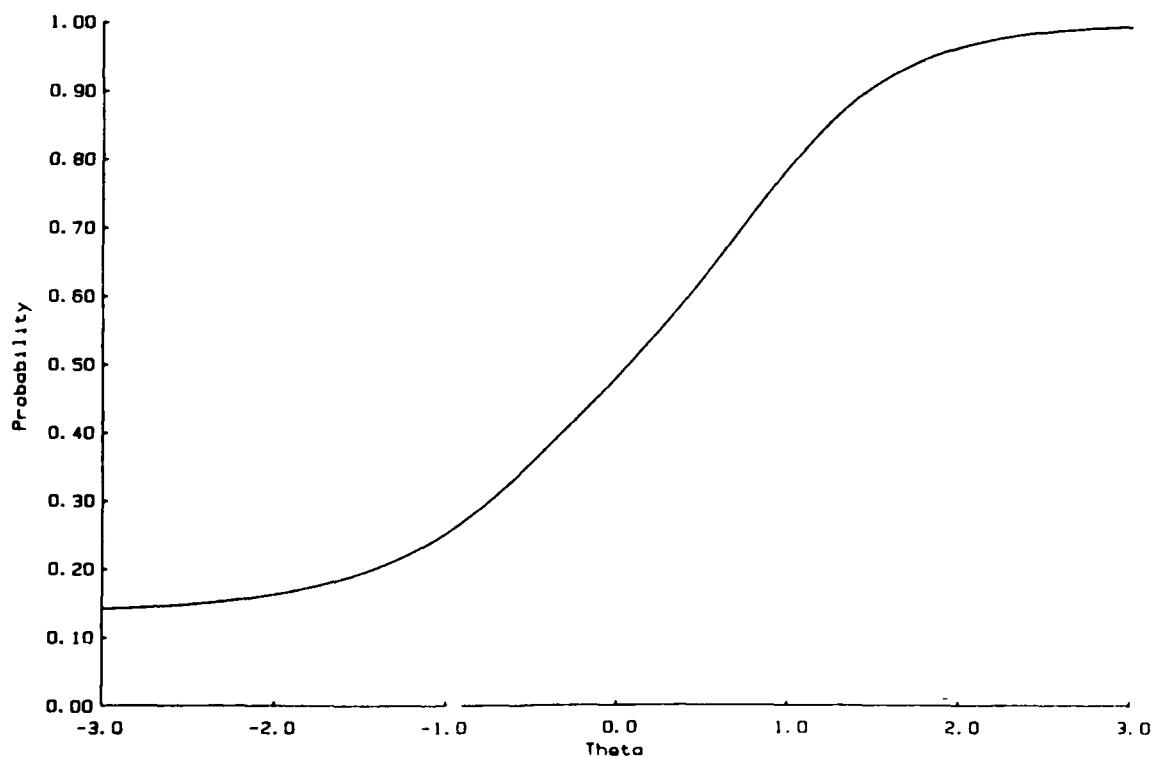


Figure 8-94. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 12a (Male Sample).

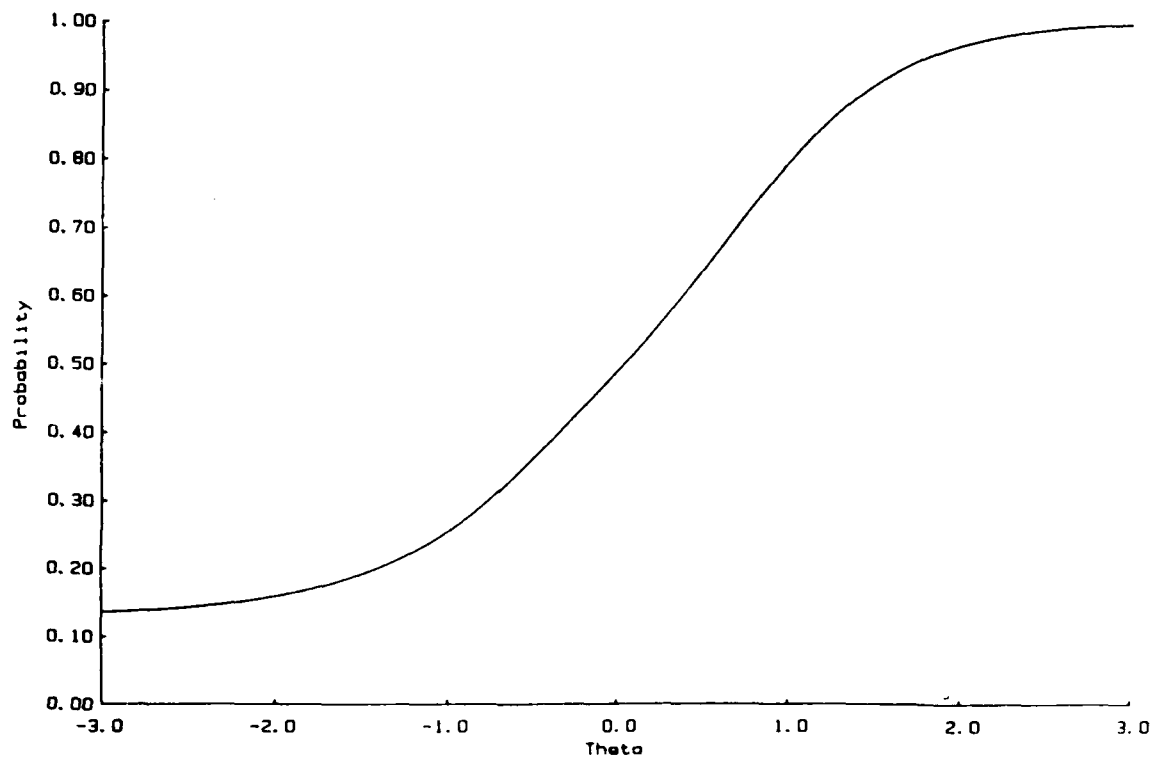


Figure B-95. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 12b (Male Sample).

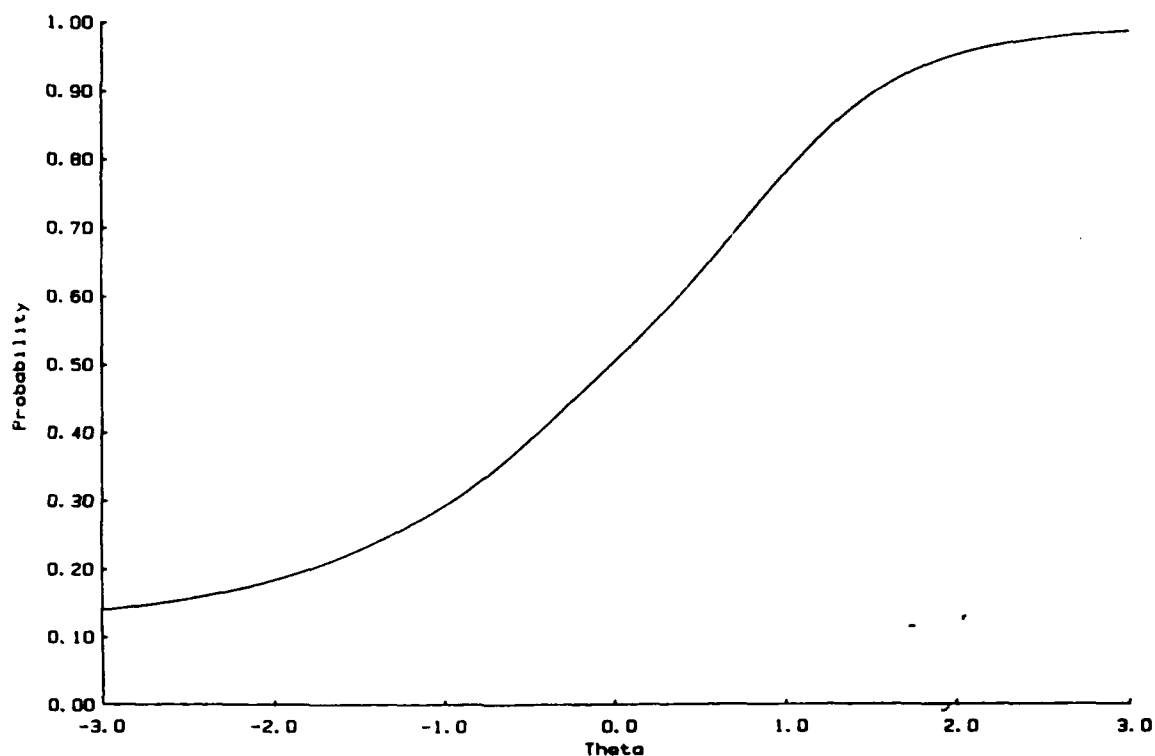


Figure B-96. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13a (Male Sample).

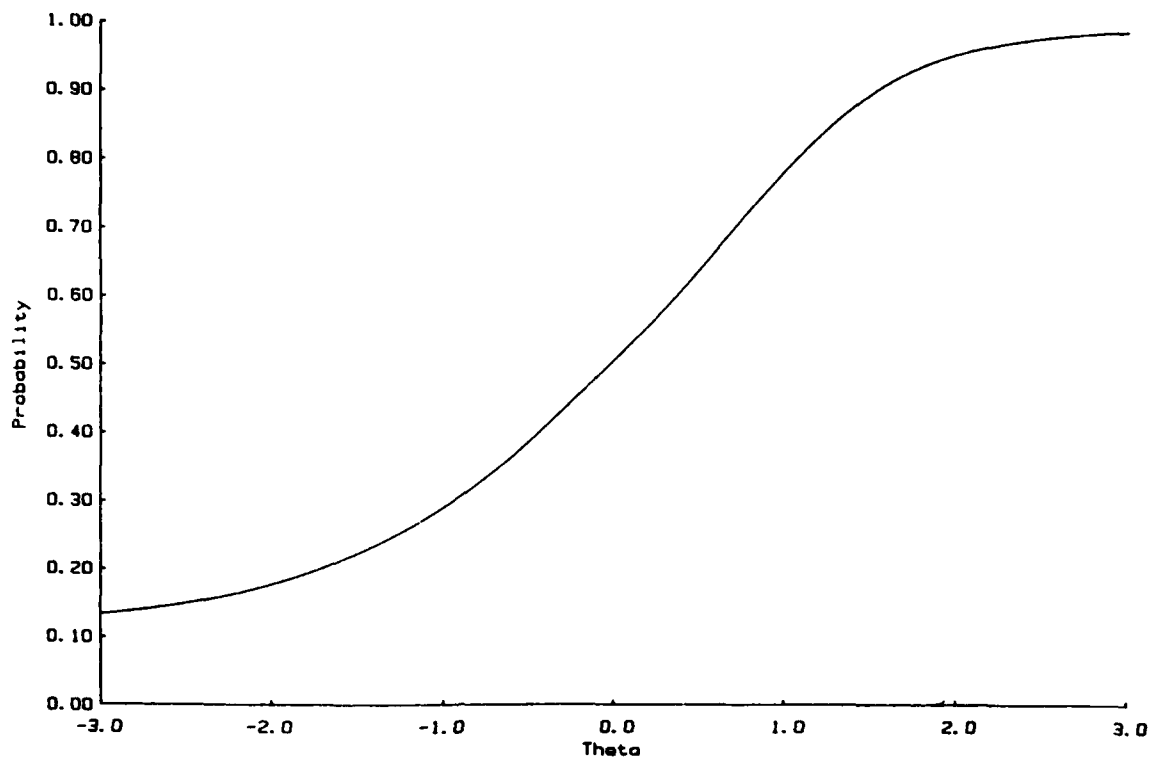


Figure B-97. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13b (Male Sample).

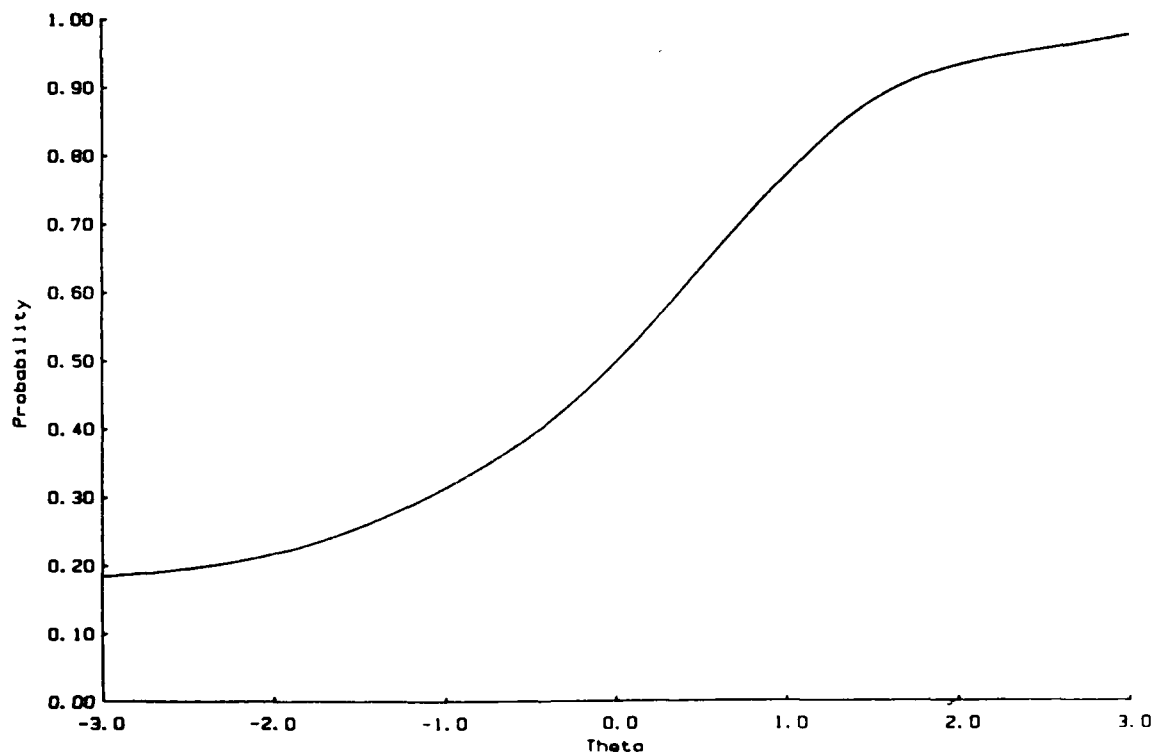


Figure B-98. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13c (Male Sample).

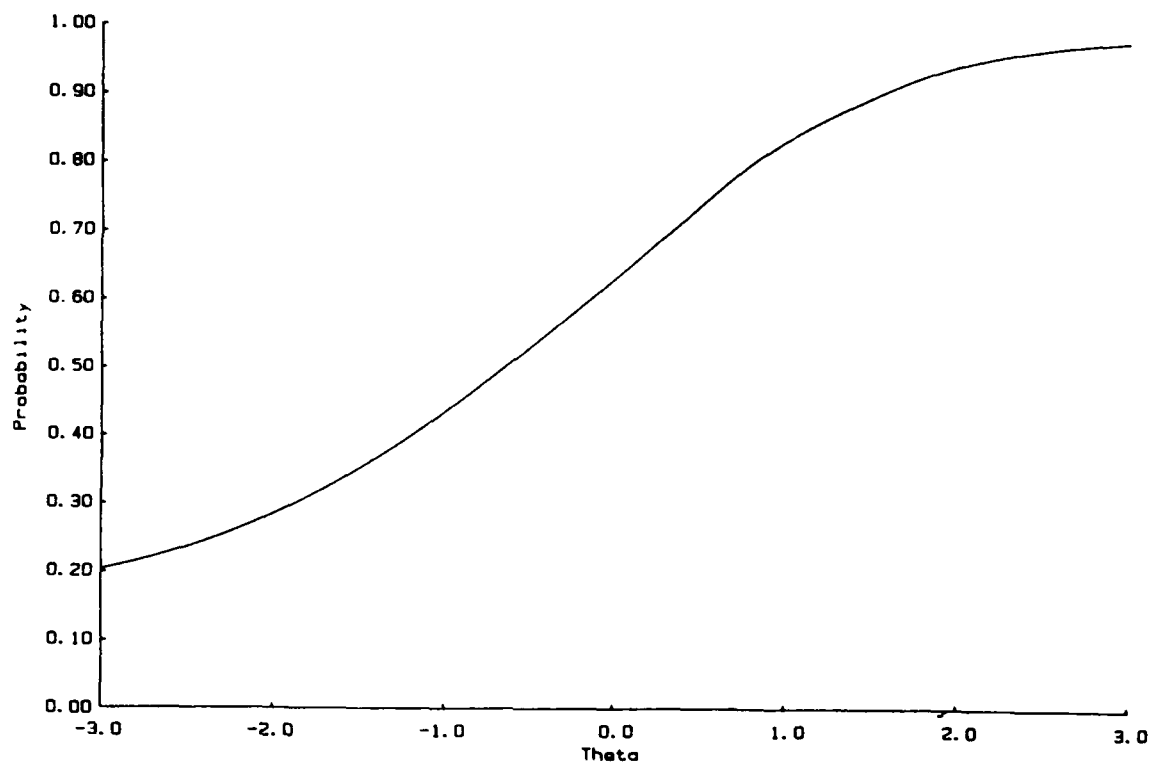


Figure 8-99. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 11a (Male Sample).

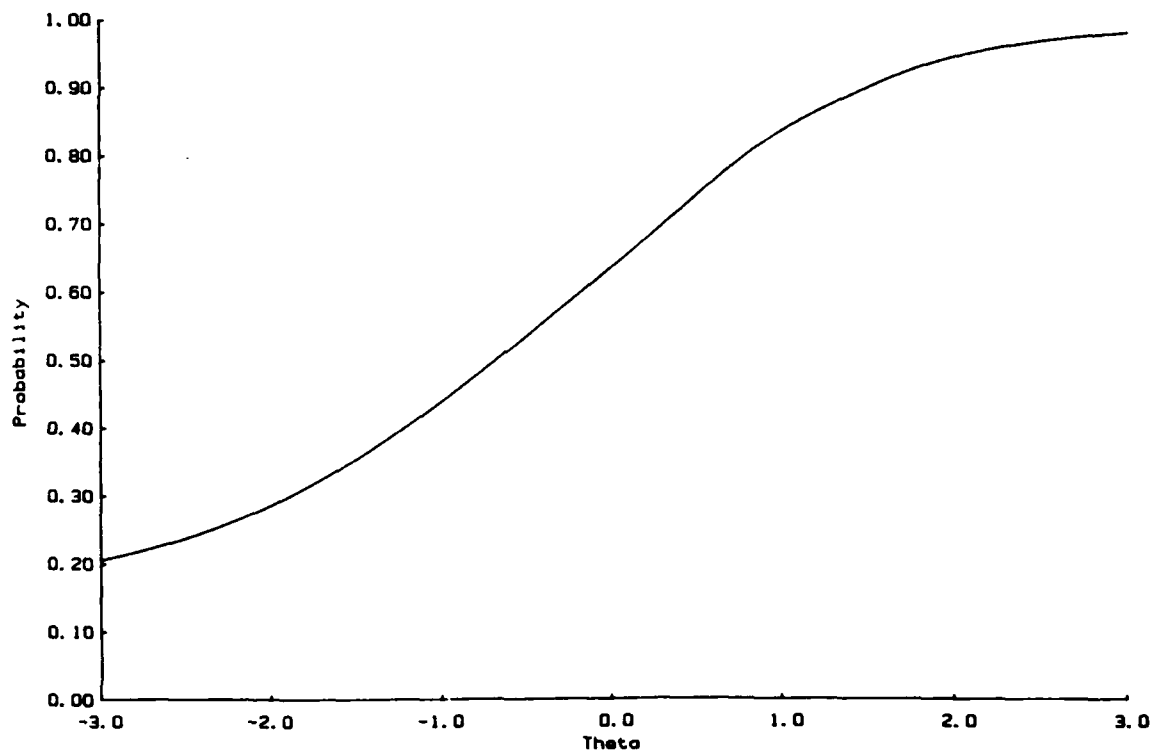


Figure 8-100. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 11b (Male Sample).

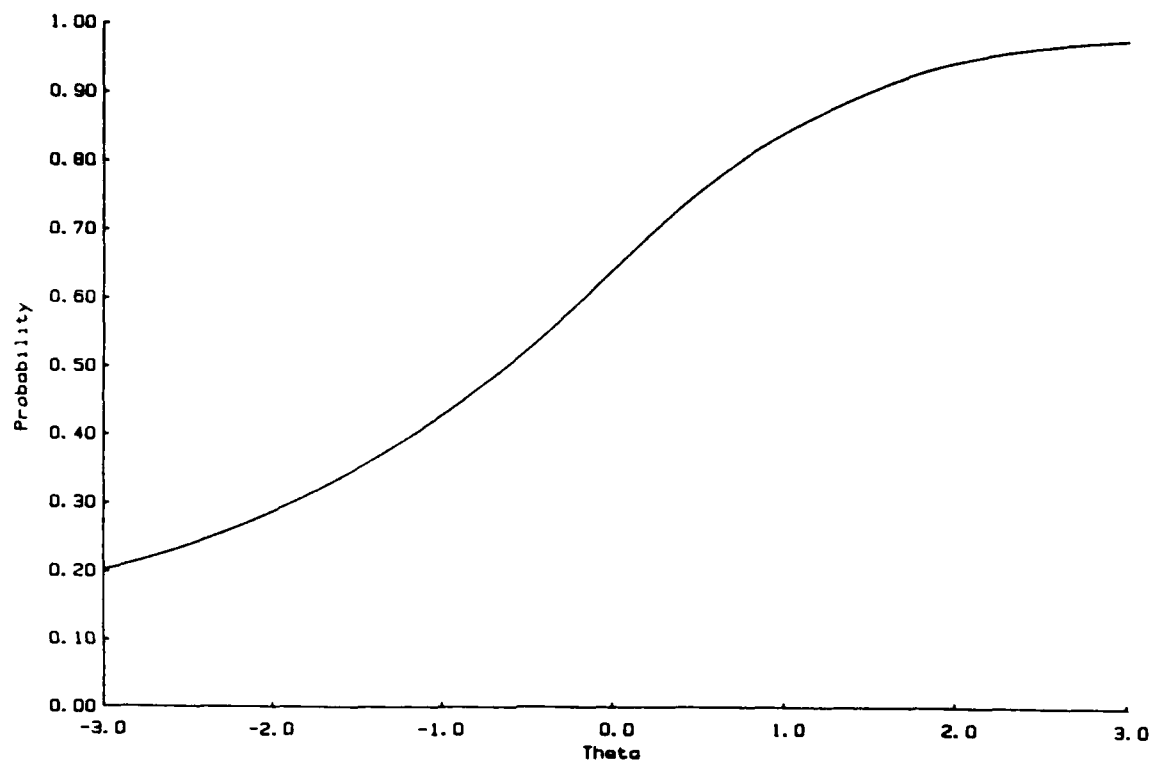


Figure 8-101. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 12a (Male Sample).

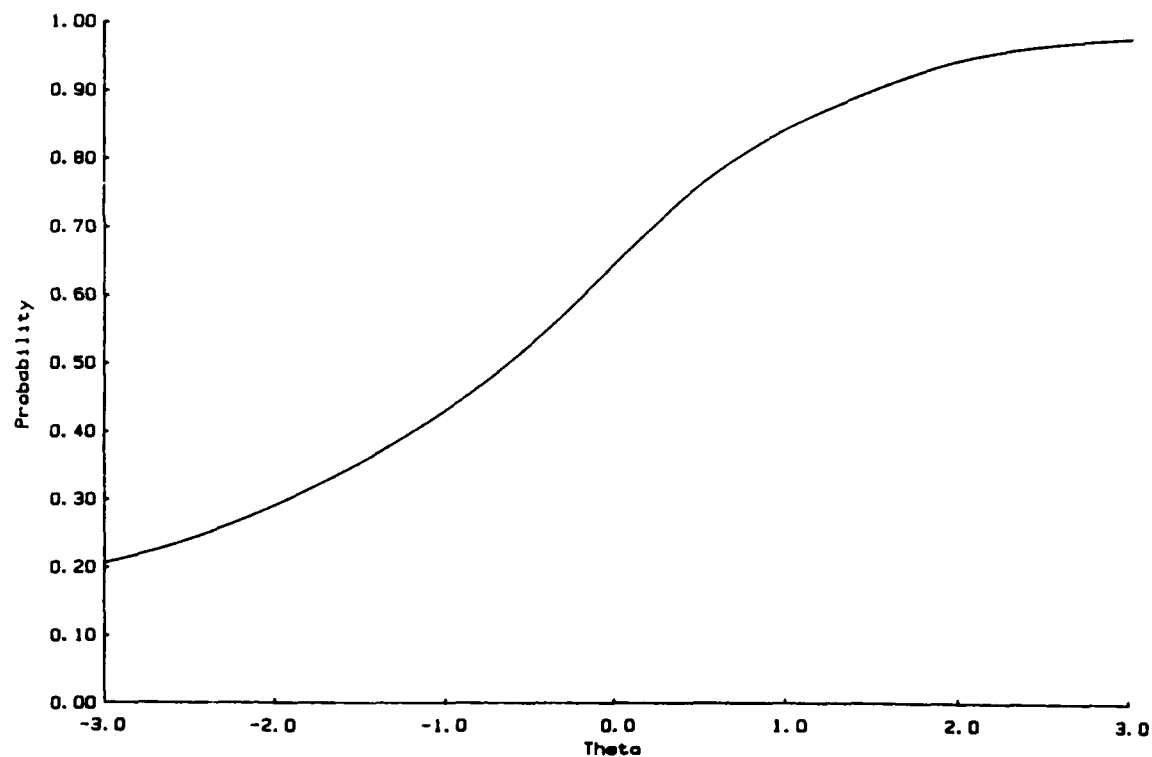


Figure 8-102. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 12b (Male Sample).

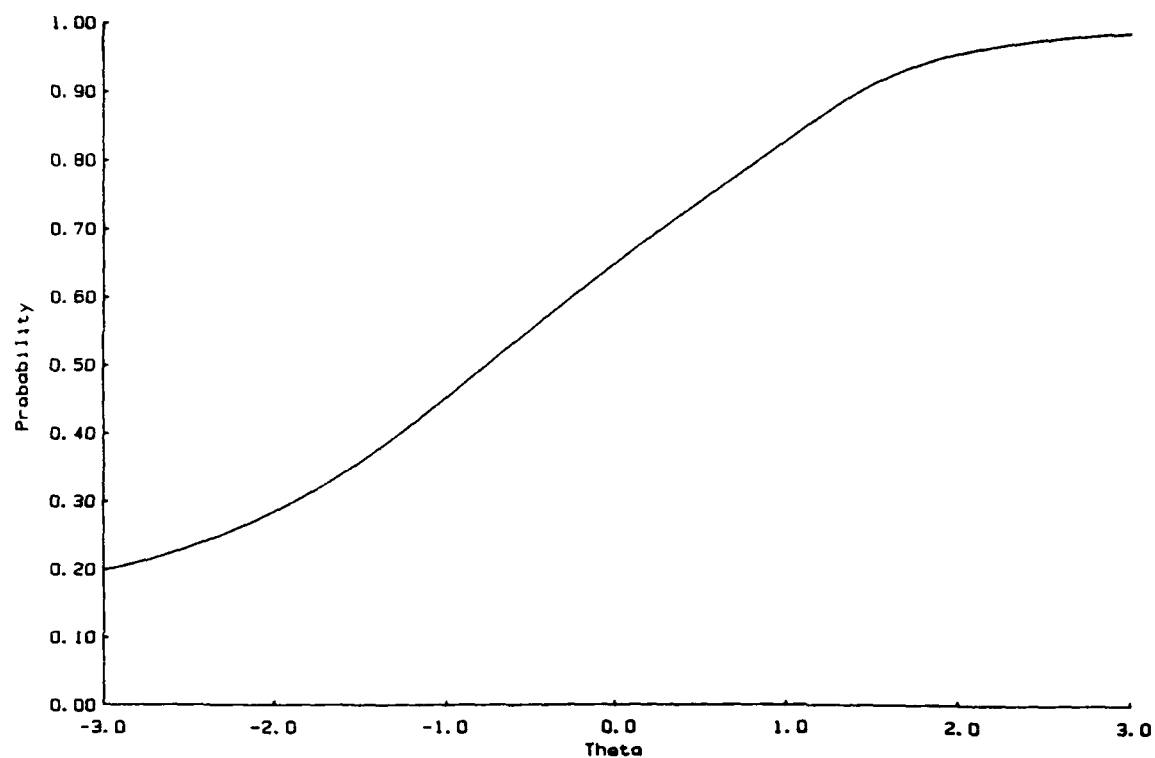


Figure B-103. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13a (Male Sample).

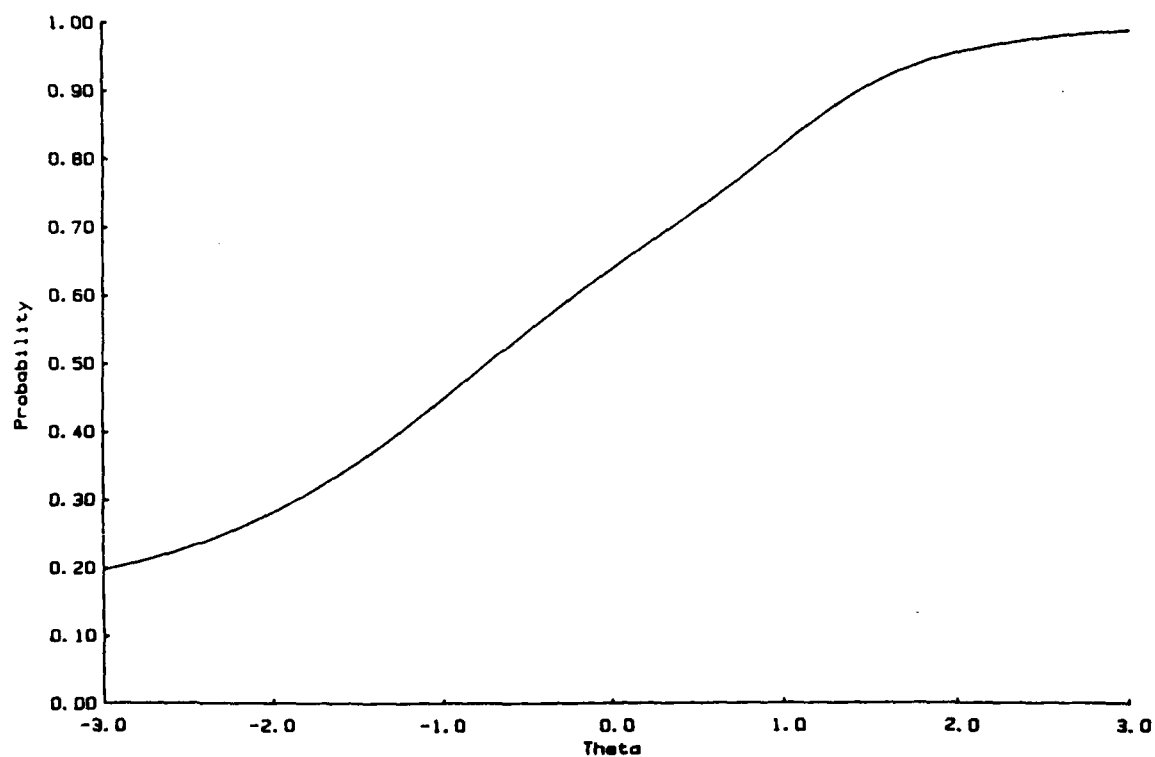


Figure B-104. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13b (Male Sample).

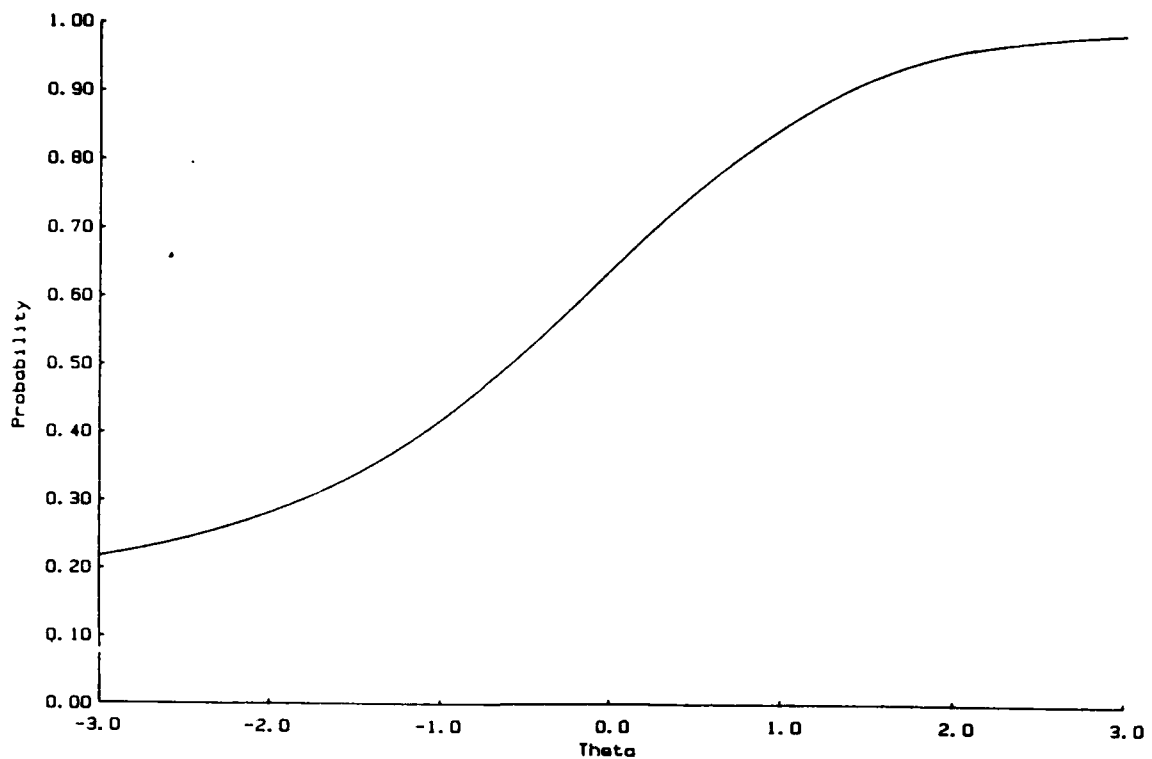


Figure B-105. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13c (Male Sample).

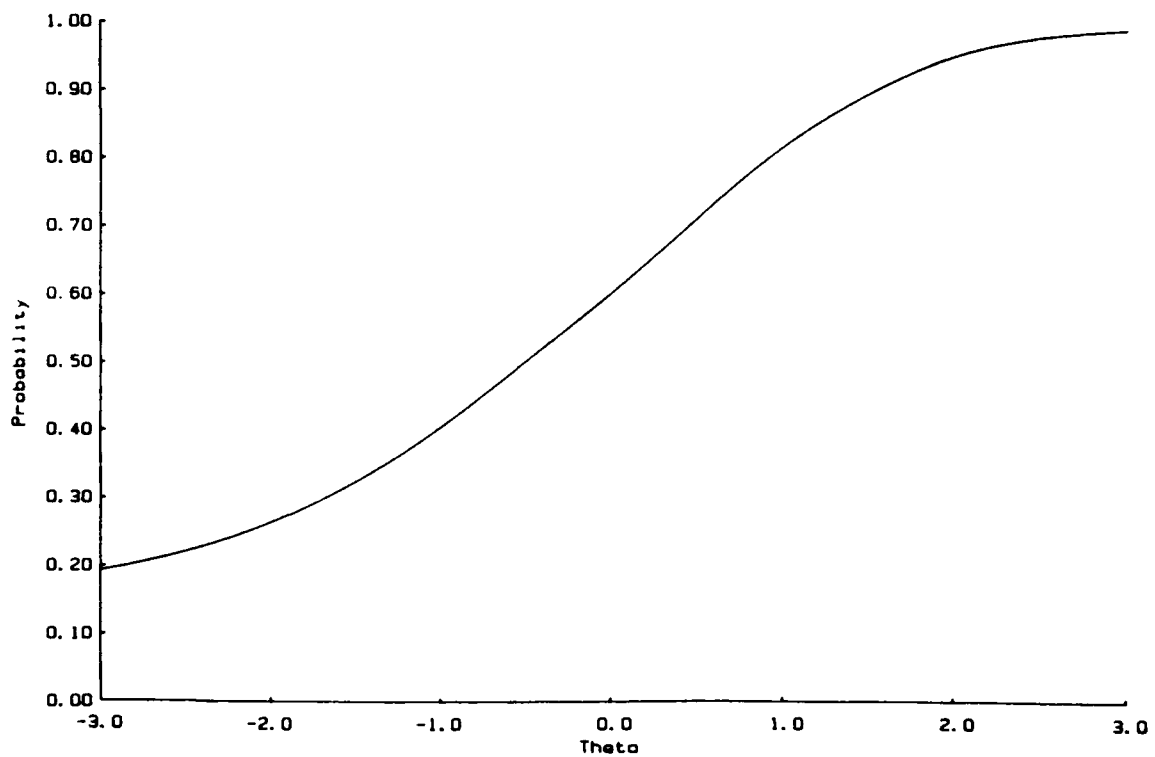


Figure B-106. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 11a (Male Sample).



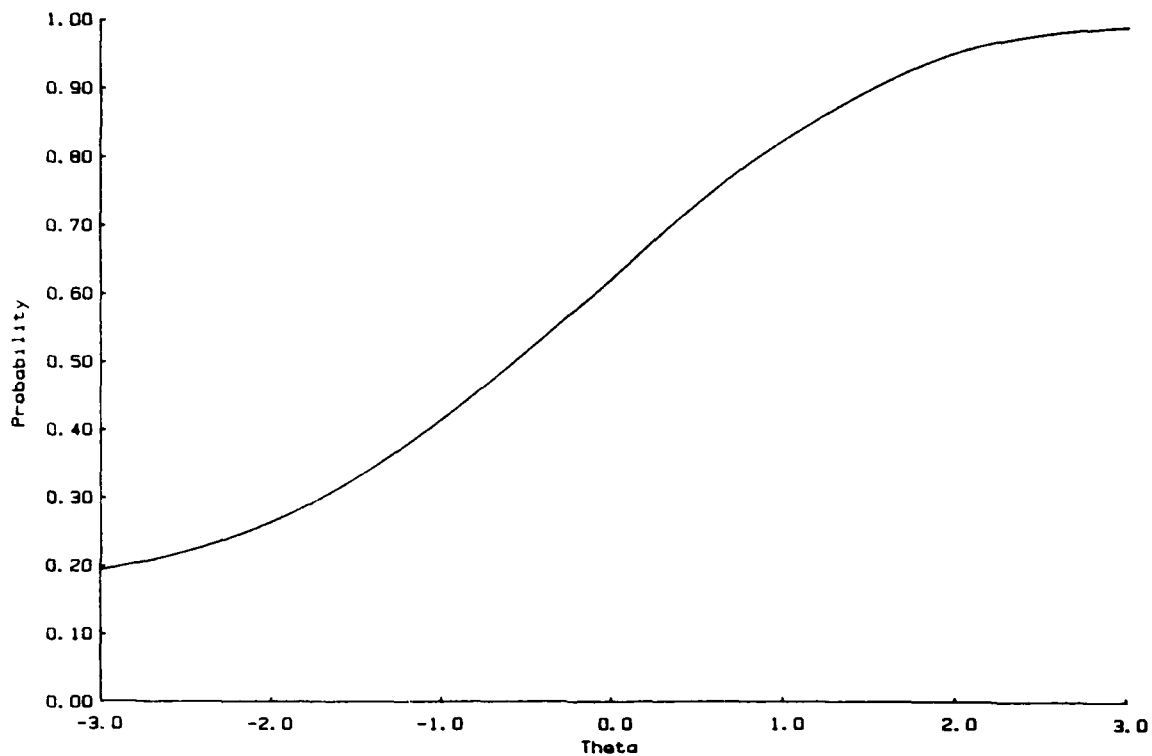


Figure 8-107. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 11b (Male Sample).

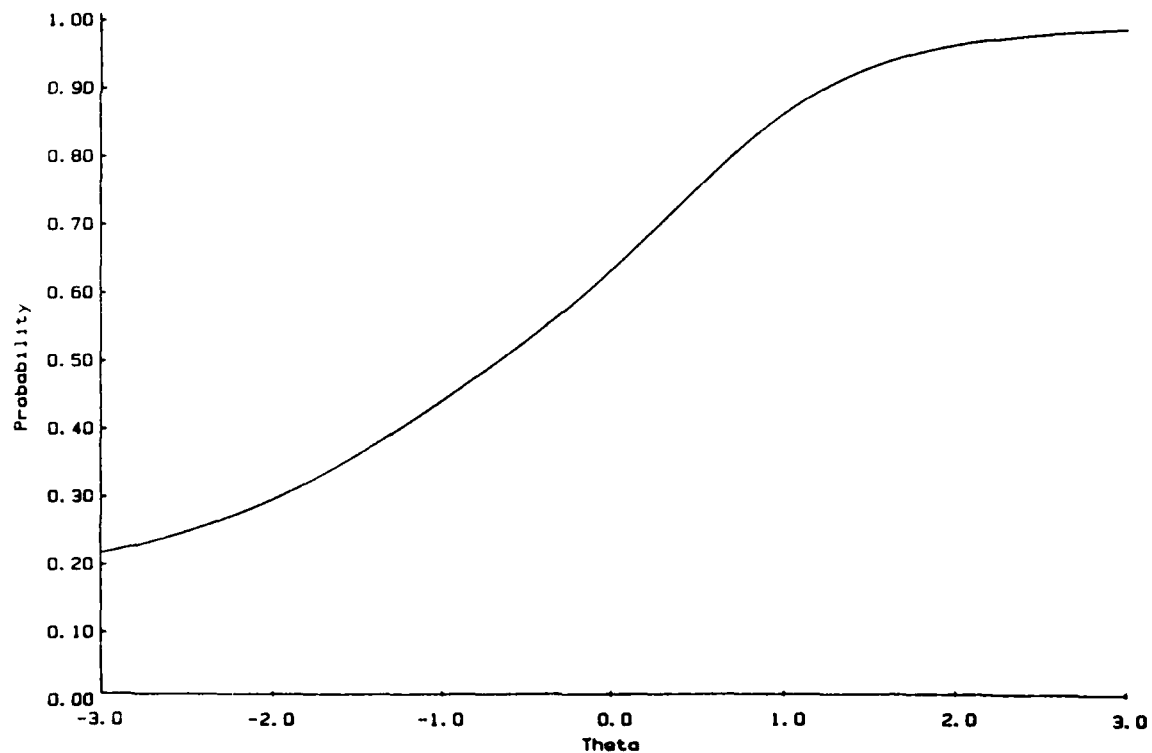


Figure 8-108. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 12a (Male Sample).

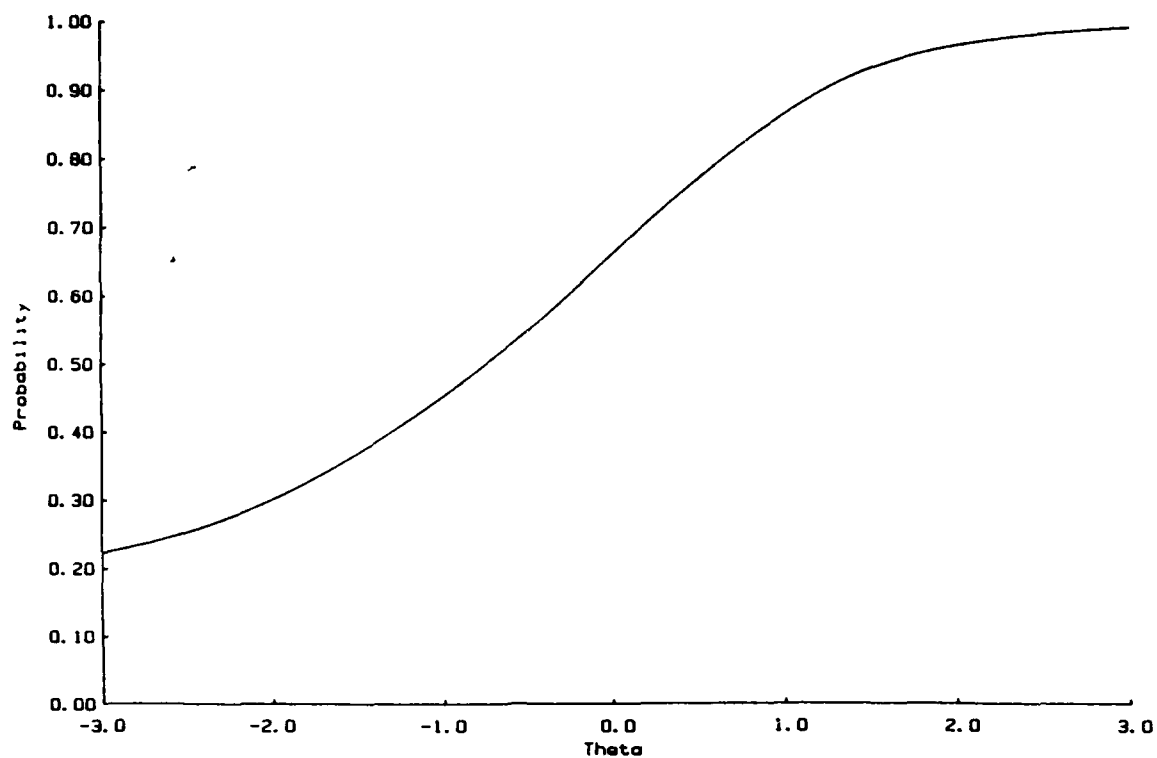


Figure 8-109. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 12b (Male Sample).

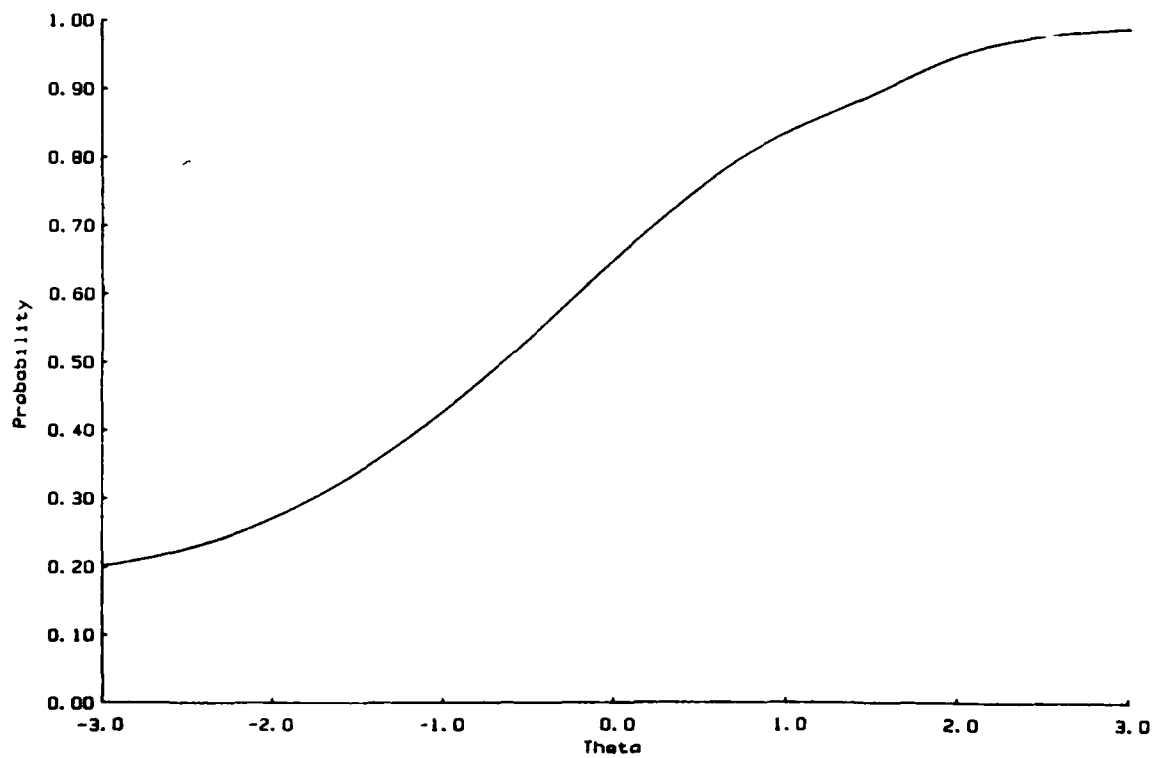


Figure 8-110. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13a (Male Sample).

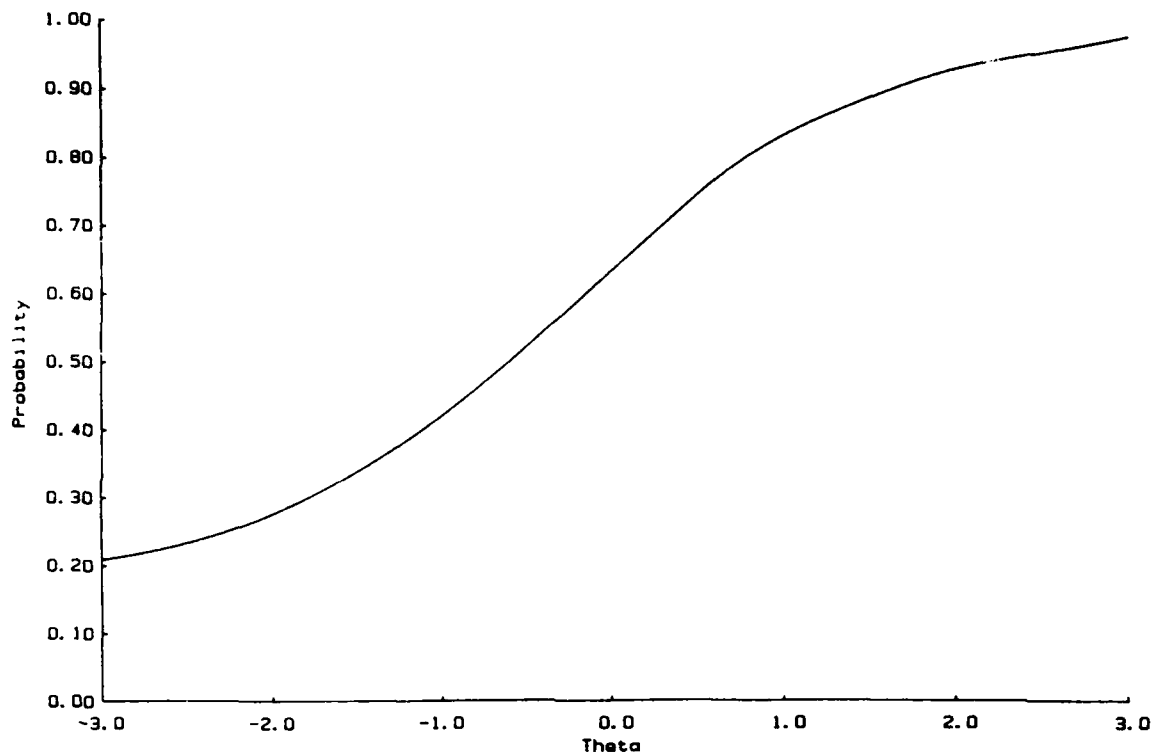


Figure B-111. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13b (Male Sample).

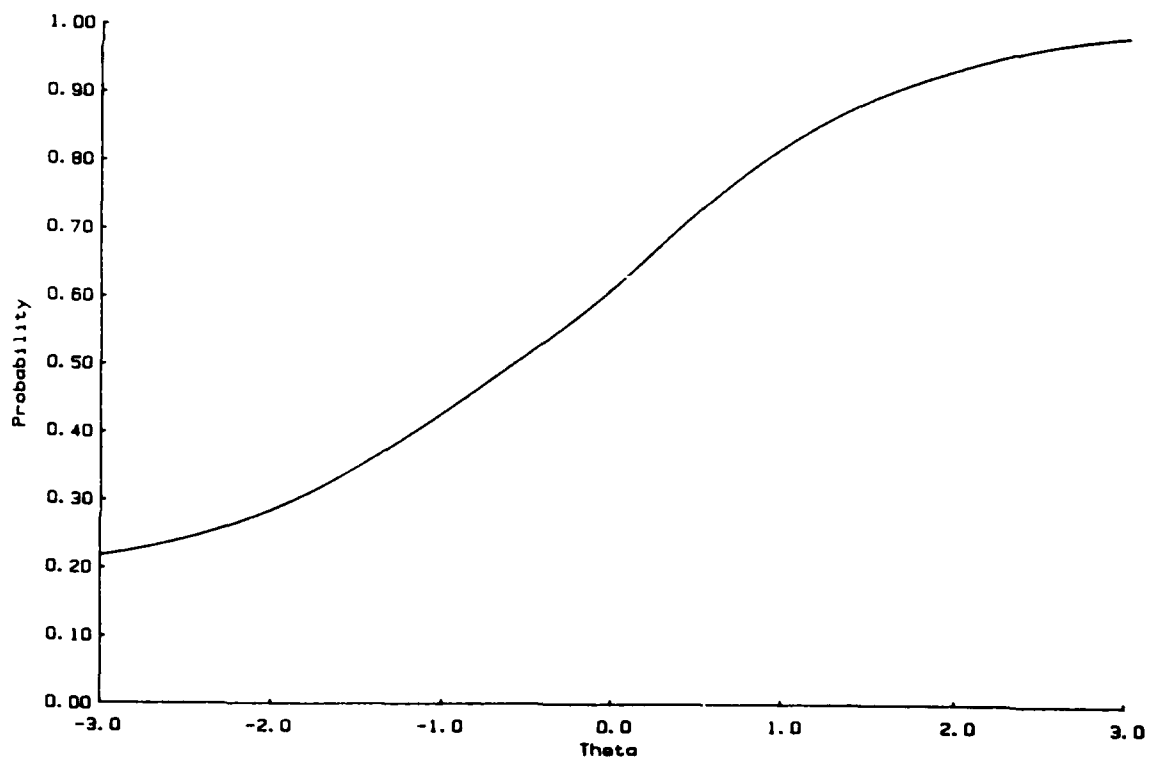


Figure B-112. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13c (Male Sample).

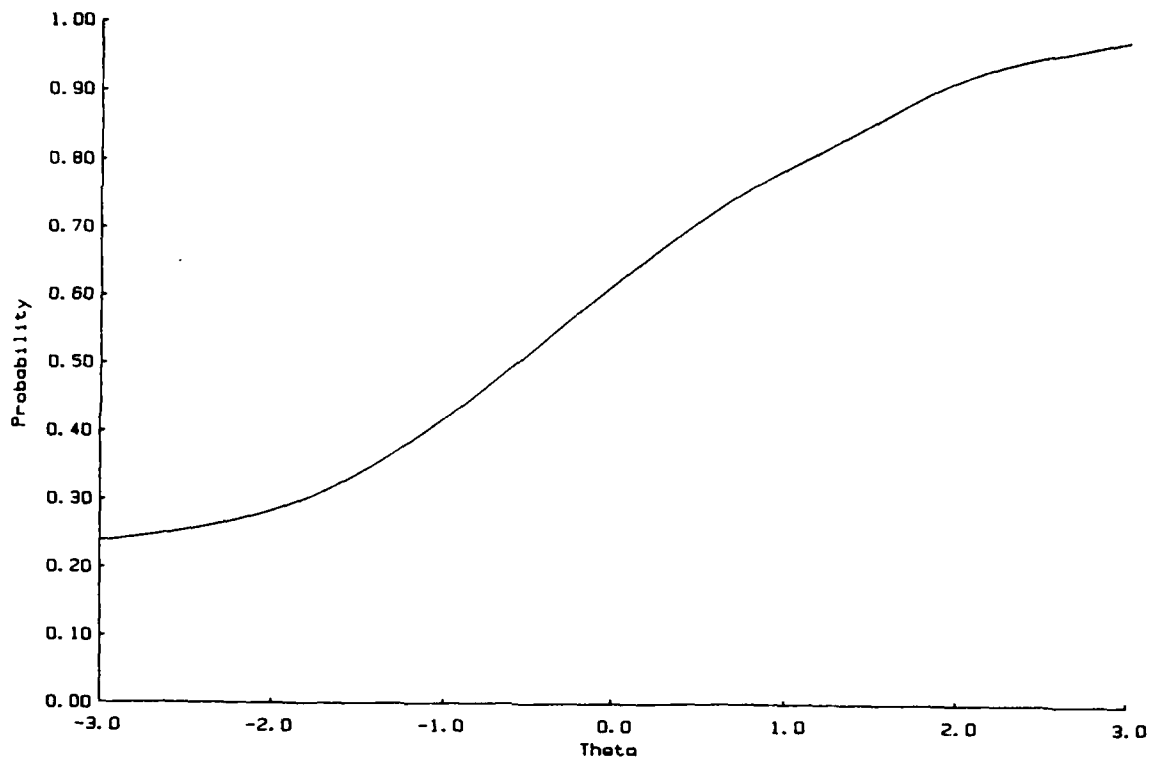


Figure 8-113. Test Characteristic Curve for General Science Subtest on ASVAB Form 11a (Female Sample).

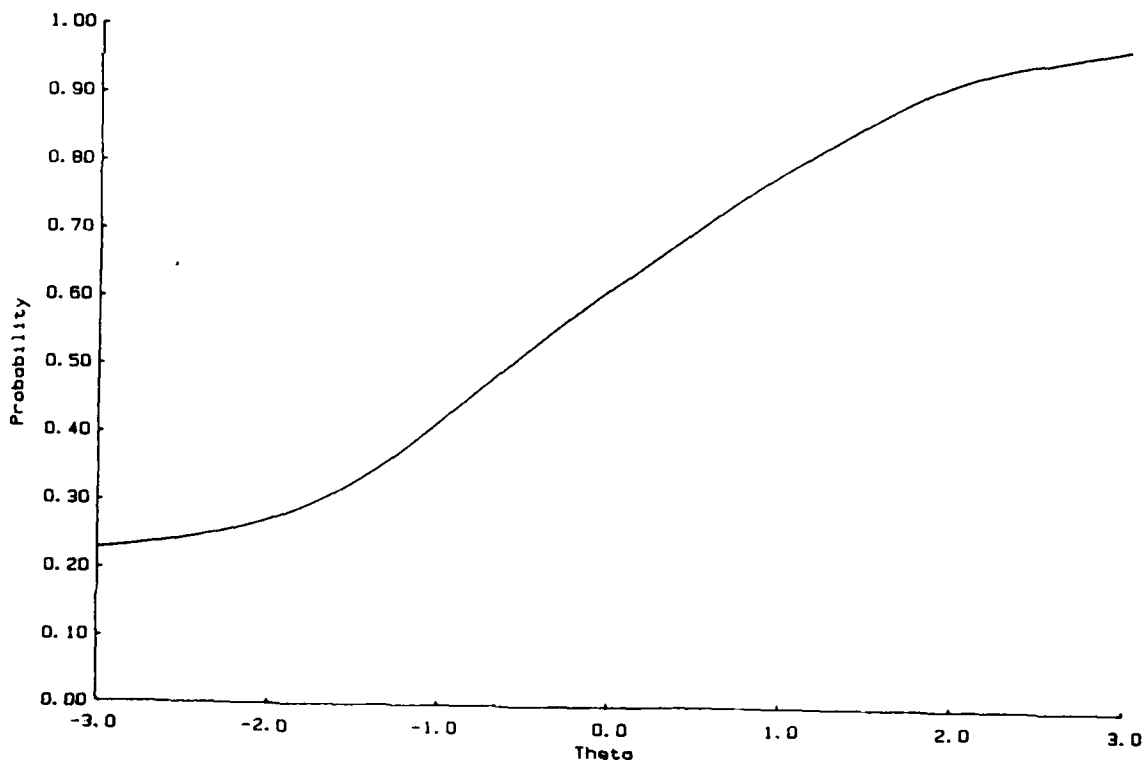


Figure 8-114. Test Characteristic Curve for General Science Subtest on ASVAB Form 11b (Female Sample).

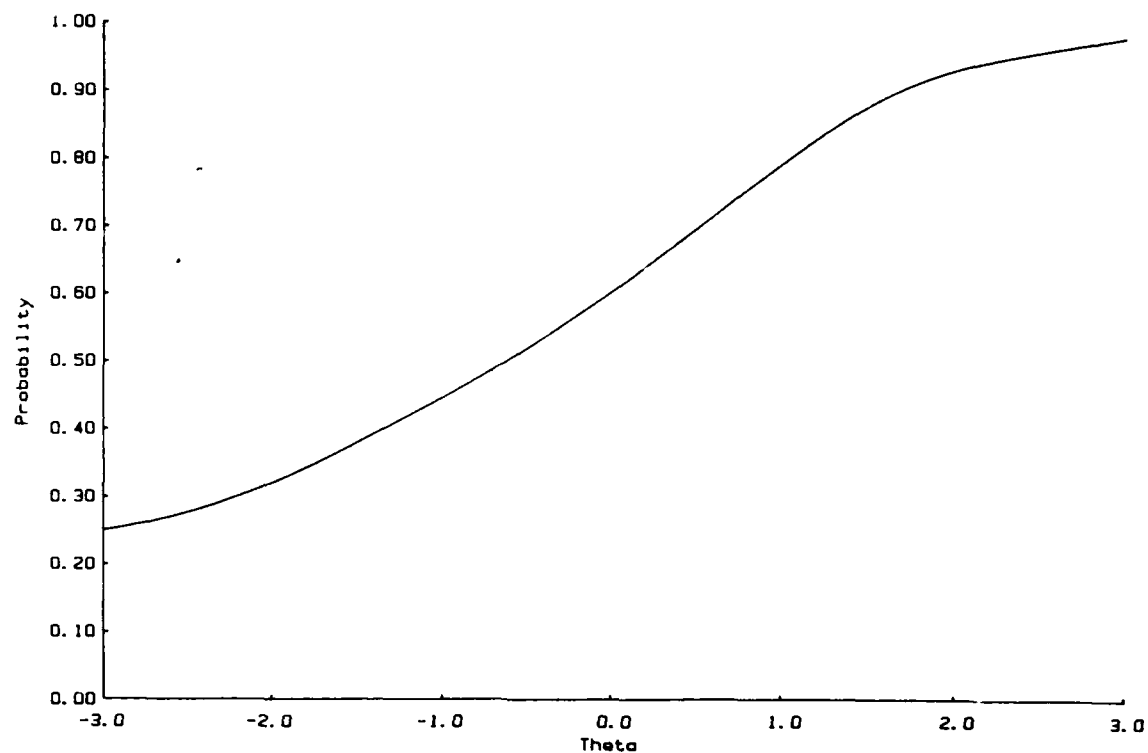


Figure B-115. Test Characteristic Curve for General Science Subtest on ASVAB Form 12a (Female Sample).

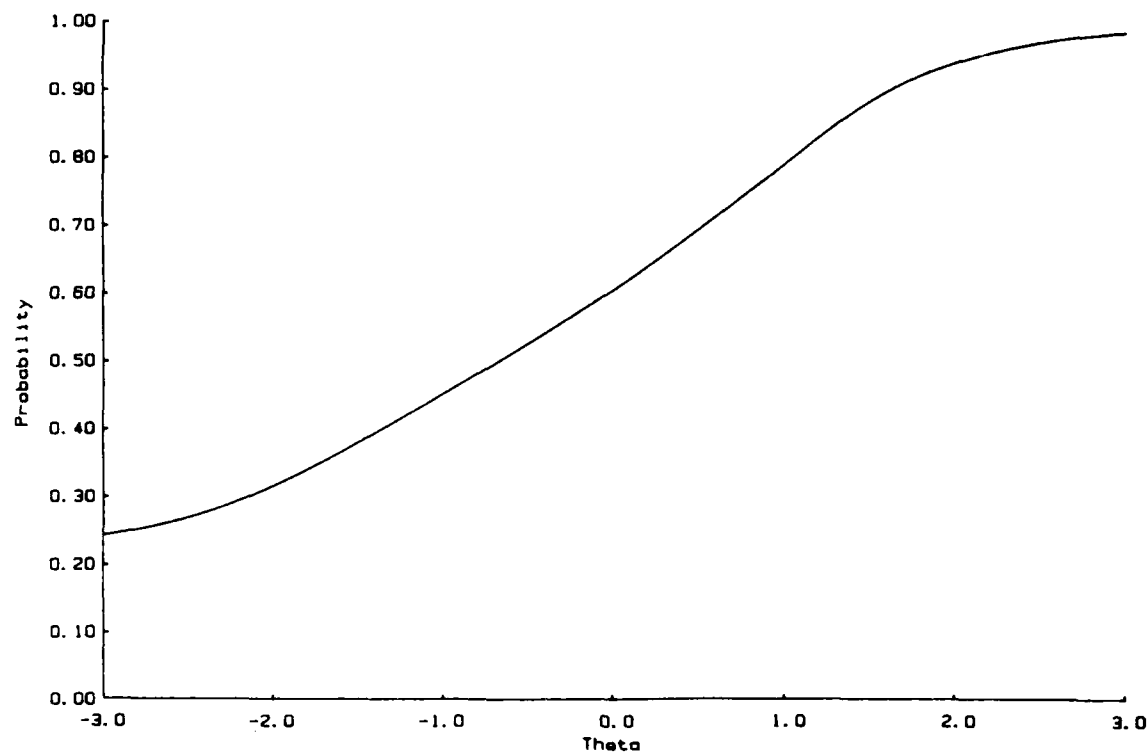


Figure B-116. Test Characteristic Curve for General Science Subtest on ASVAB Form 12b (Female Sample).

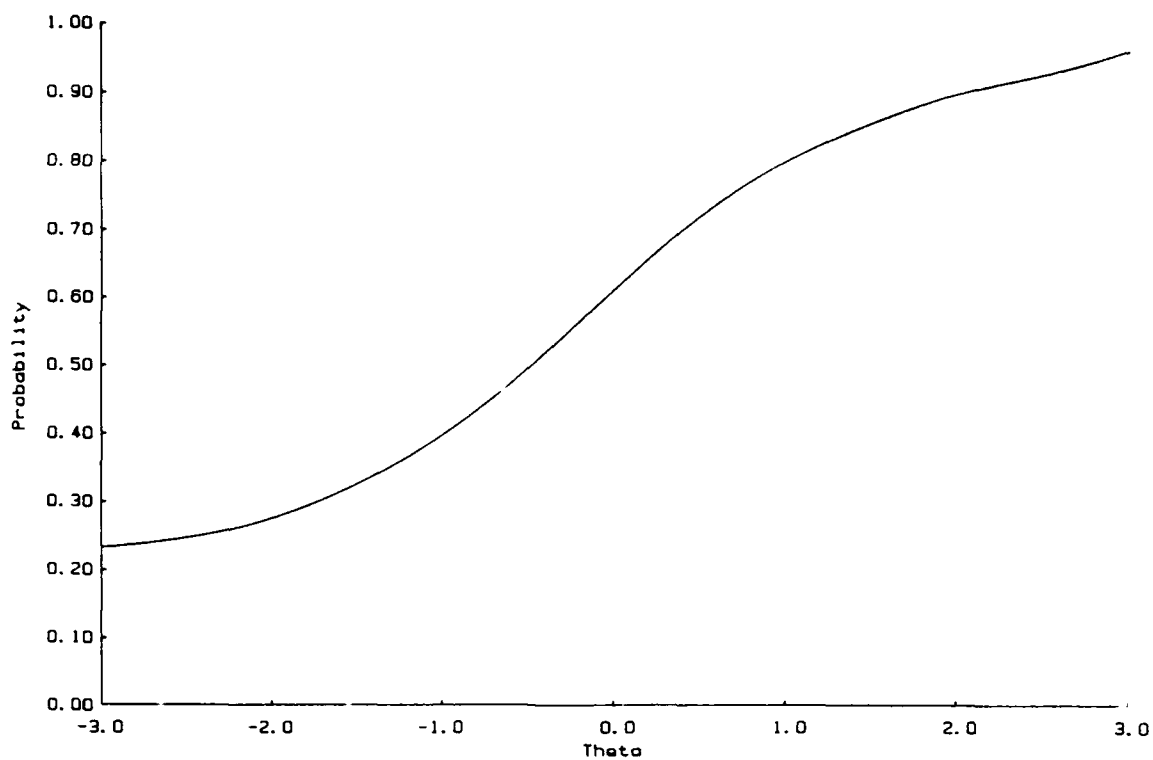


Figure B-117. Test Characteristic Curve for General Science Subtest on ASVAB Form 13a (Female Sample).

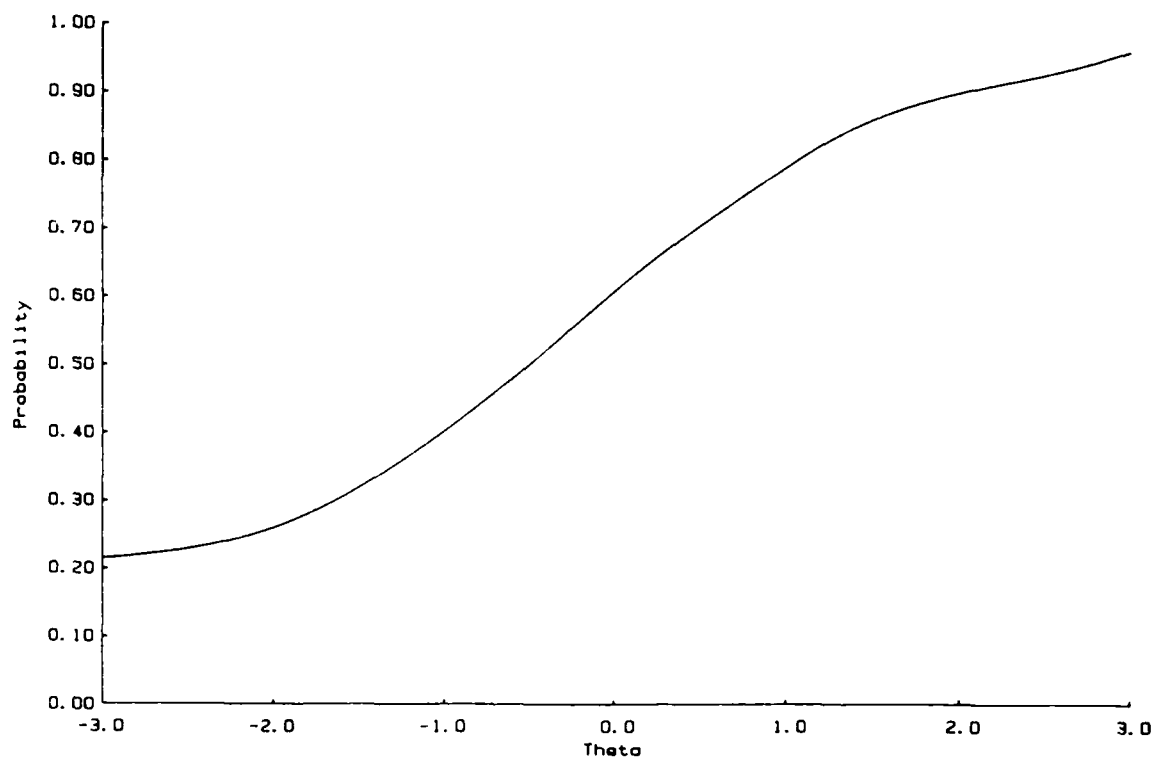


Figure B-118. Test Characteristic Curve for General Science Subtest on ASVAB Form 13b (Female Sample).

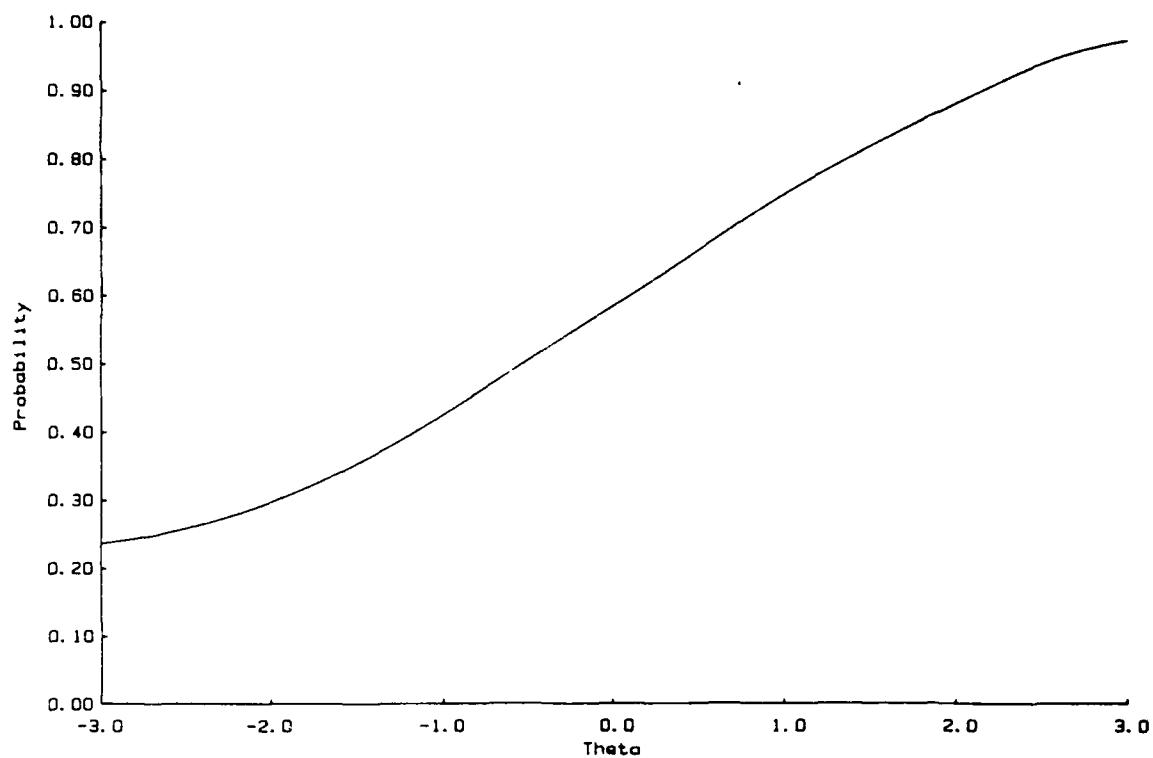


Figure B-119. Test Characteristic Curve for General Science Subtest on ASVAB Form 13c (Female Sample).

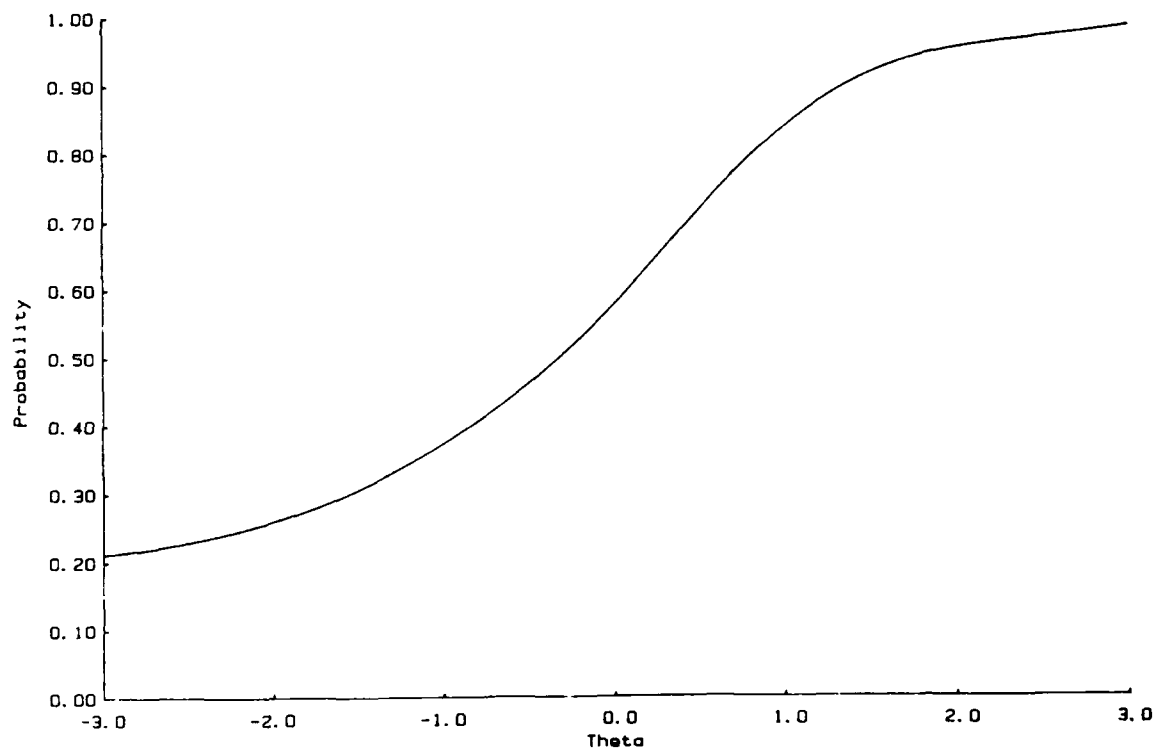


Figure B-120. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 11a (Female Sample).

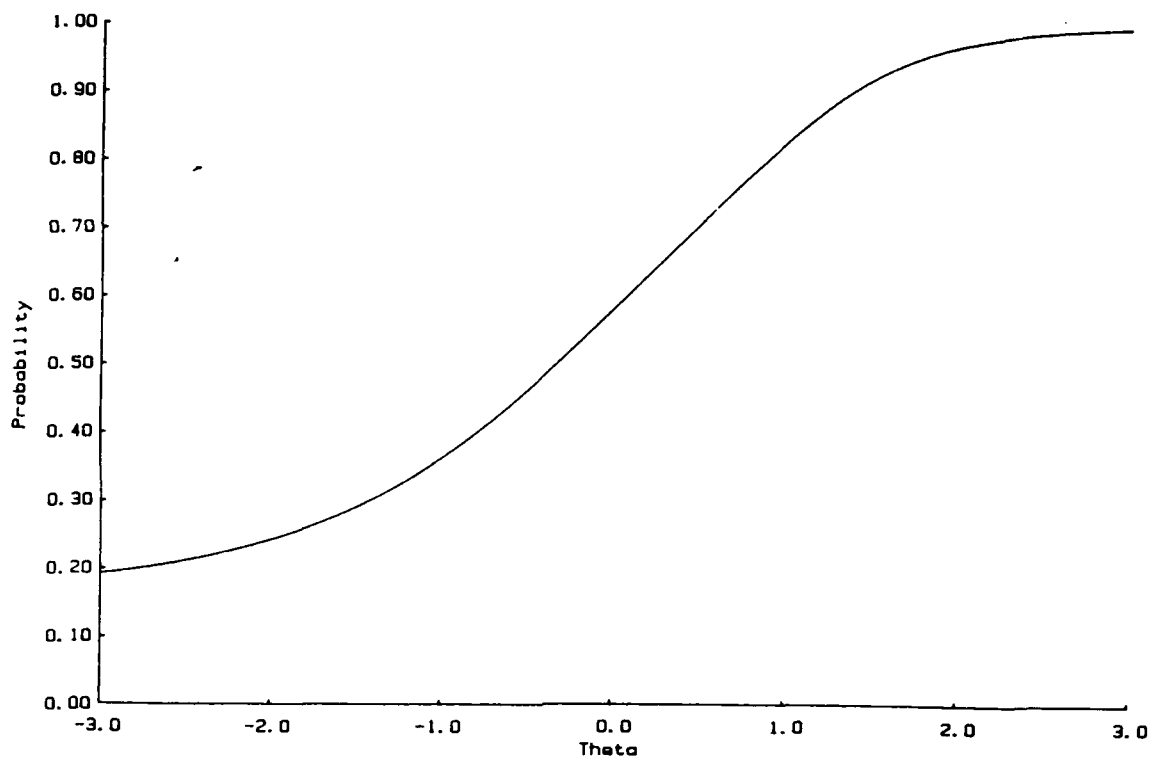


Figure B-121. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 11b (Female Sample).

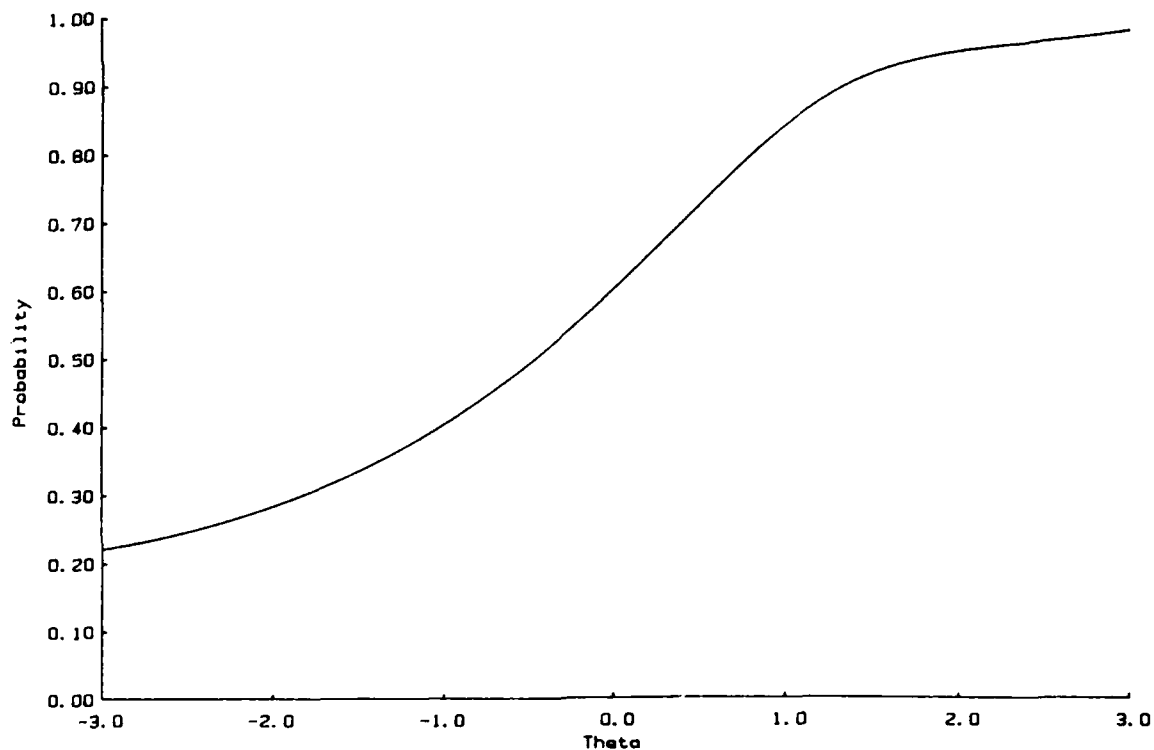


Figure B-122. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 12a (Female Sample).



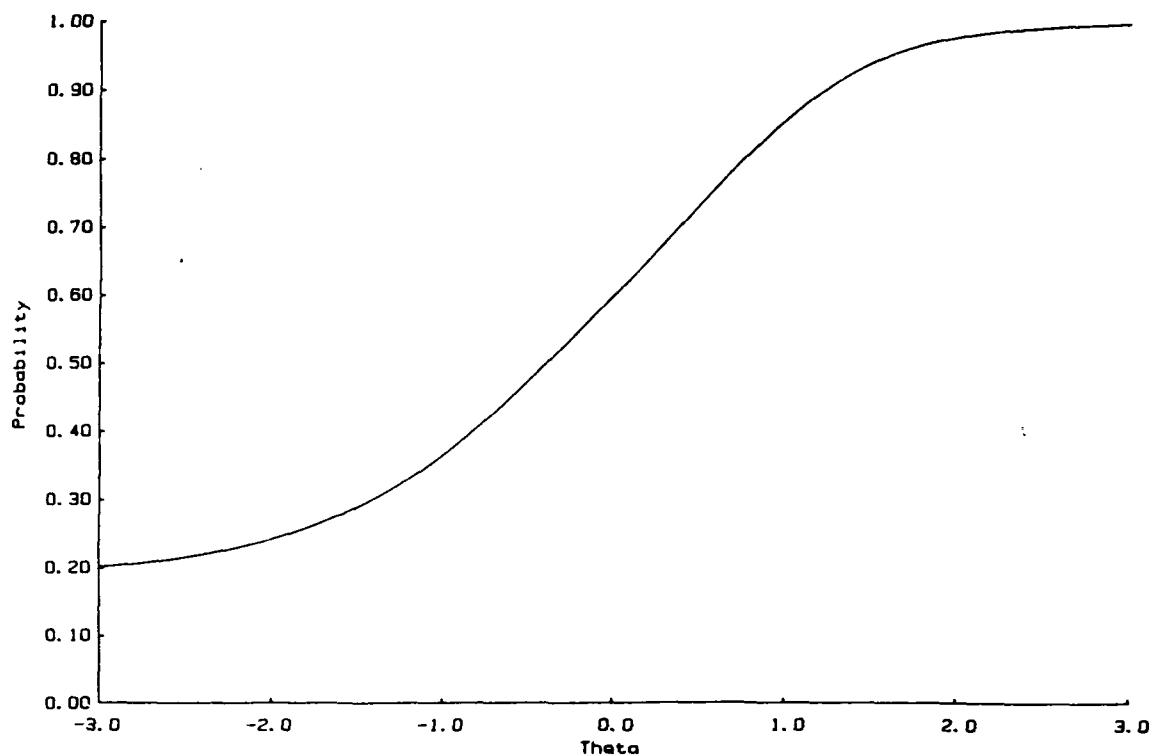


Figure 8-123. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 12b (Female Sample).

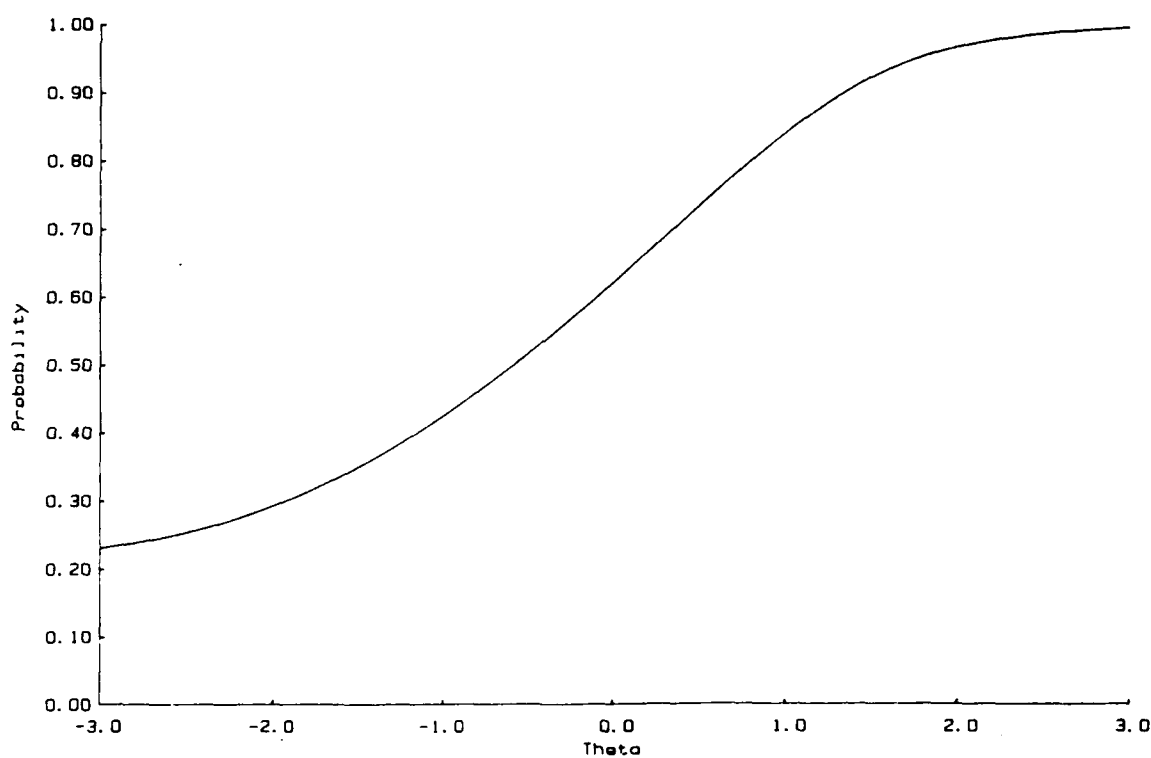


Figure 8-124. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13a (Female Sample).

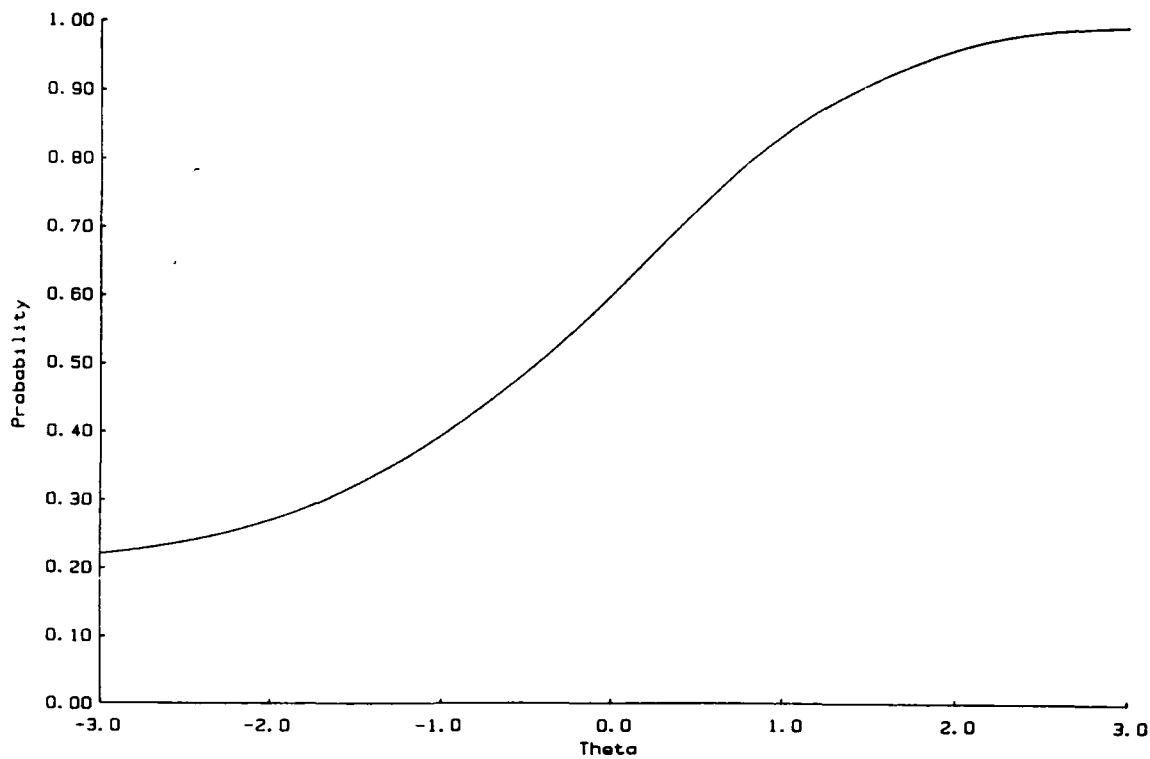


Figure 8-125. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13b (Female Sample).

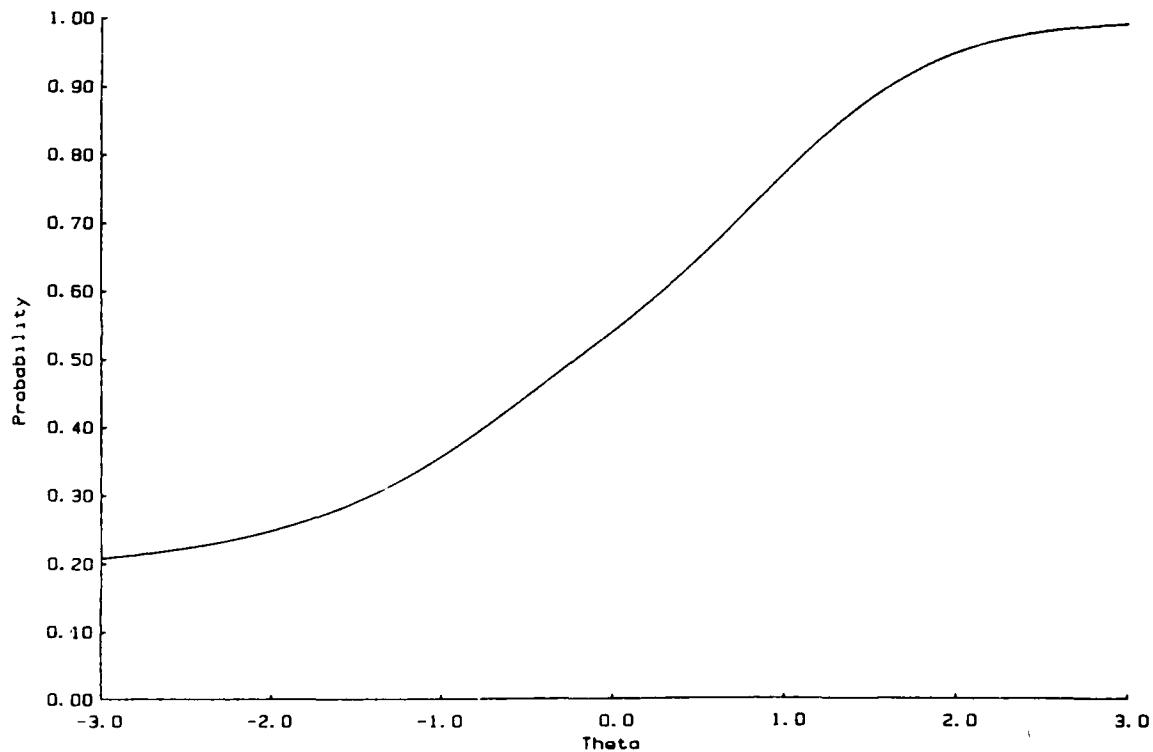


Figure 8-126. Test Characteristic Curve for Arithmetic Reasoning Subtest on ASVAB Form 13c (Female Sample).

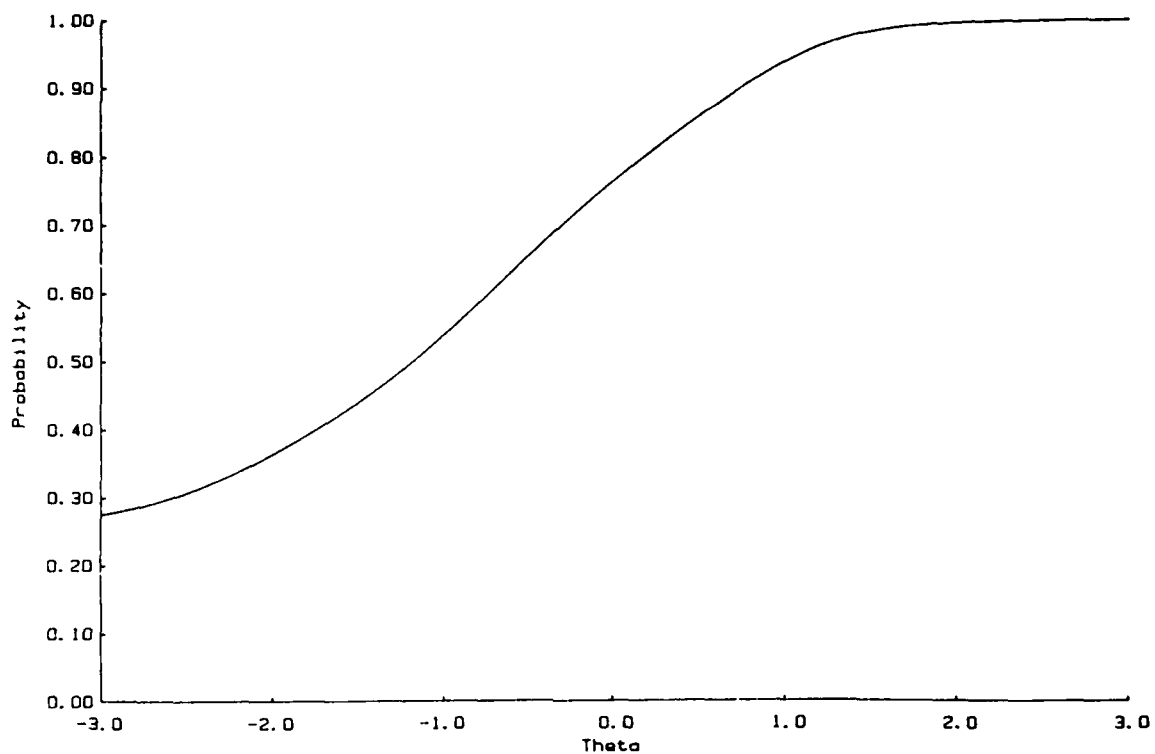


Figure B-127. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 11a (Female Sample).

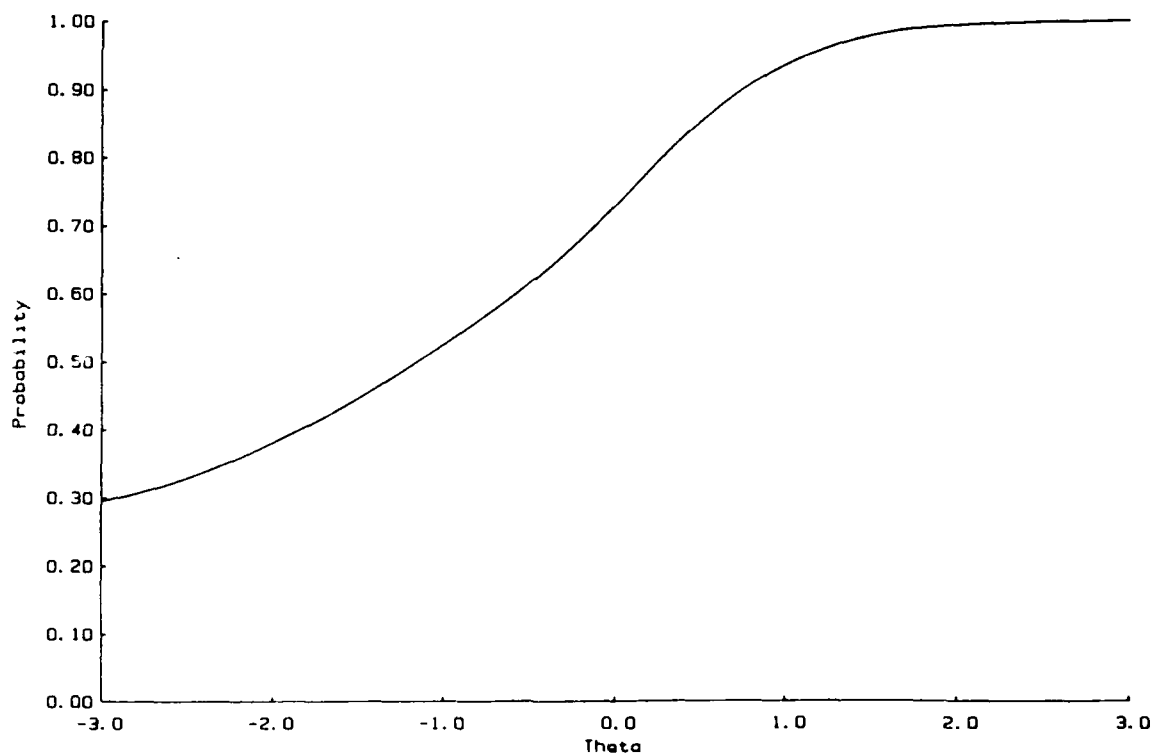


Figure B-128. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 11b (Female Sample).

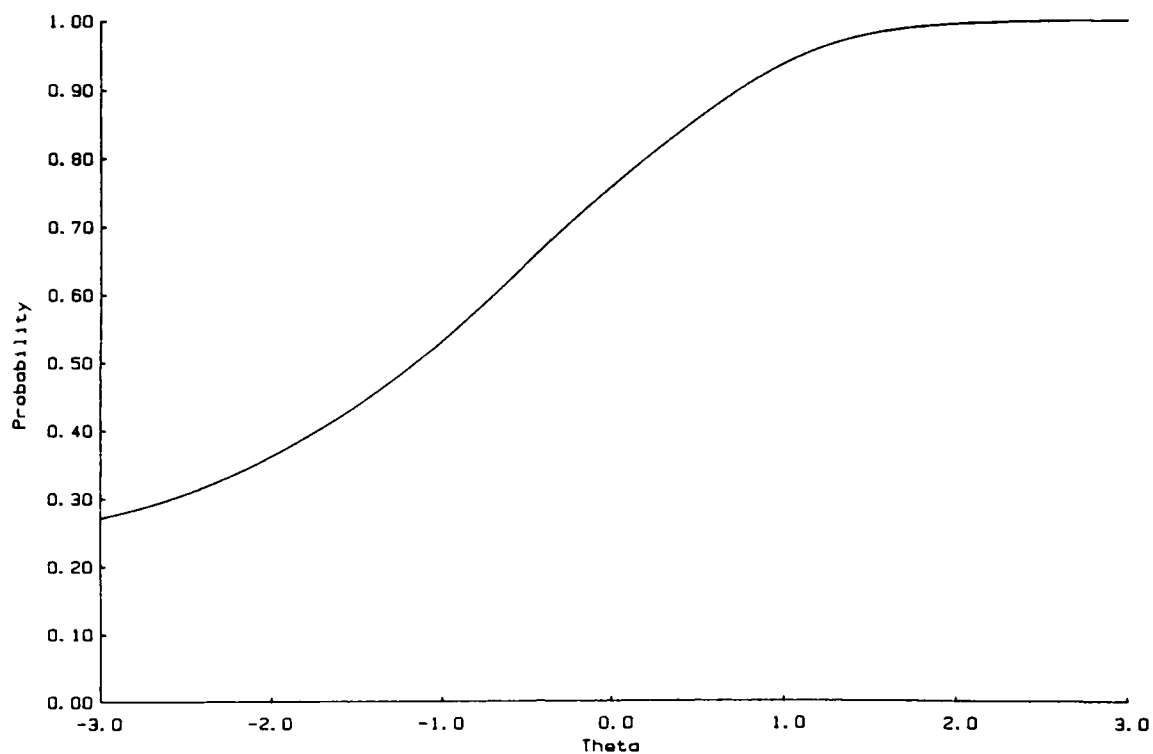


Figure 8-129. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 12a (Female Sample).

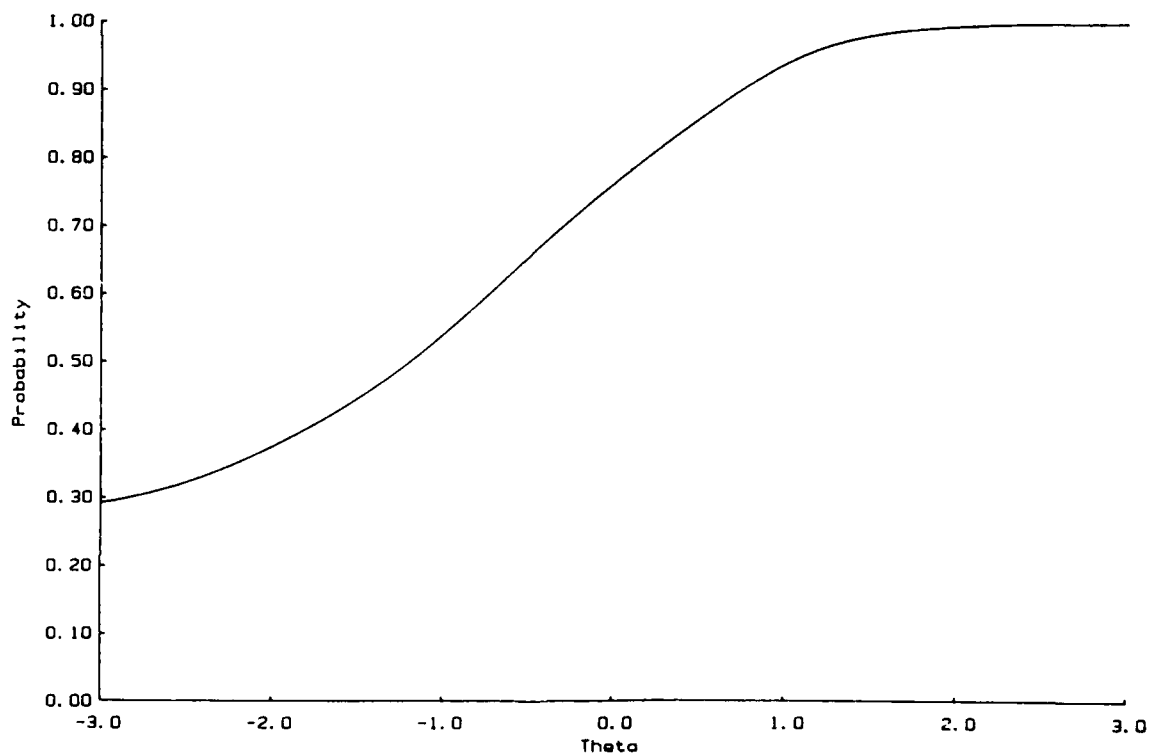


Figure 8-130. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 12b (Female Sample).

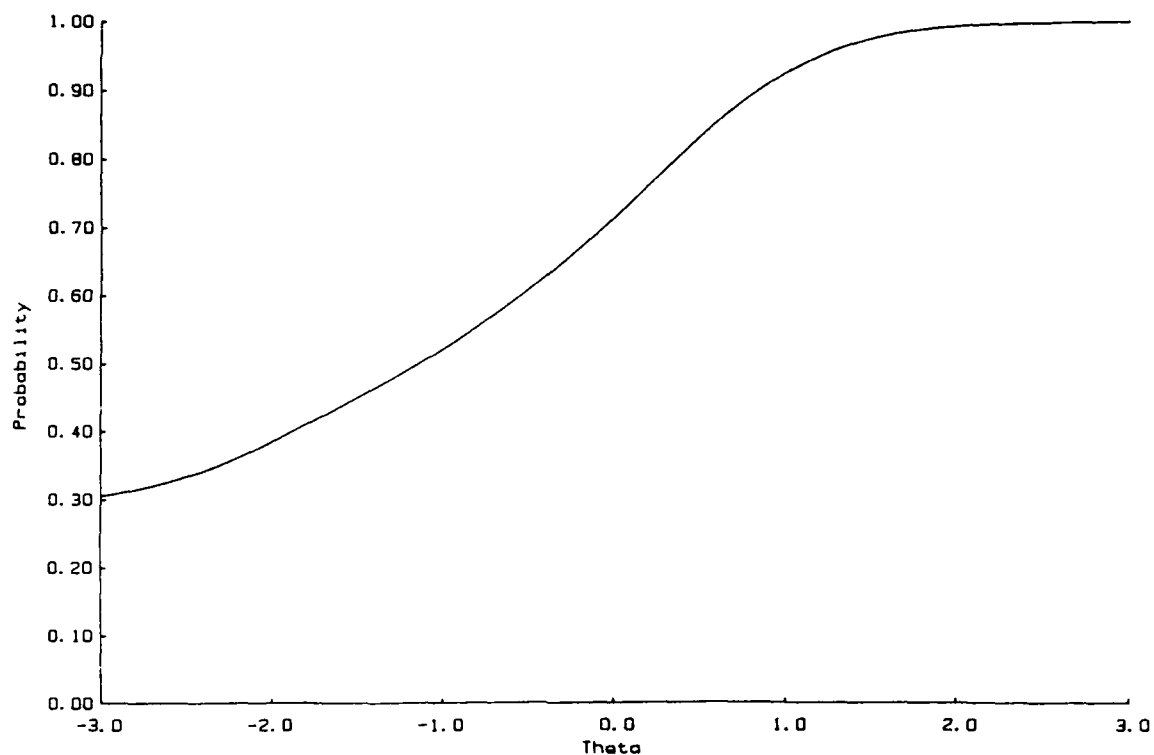


Figure 8-131. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13a (Female Sample).

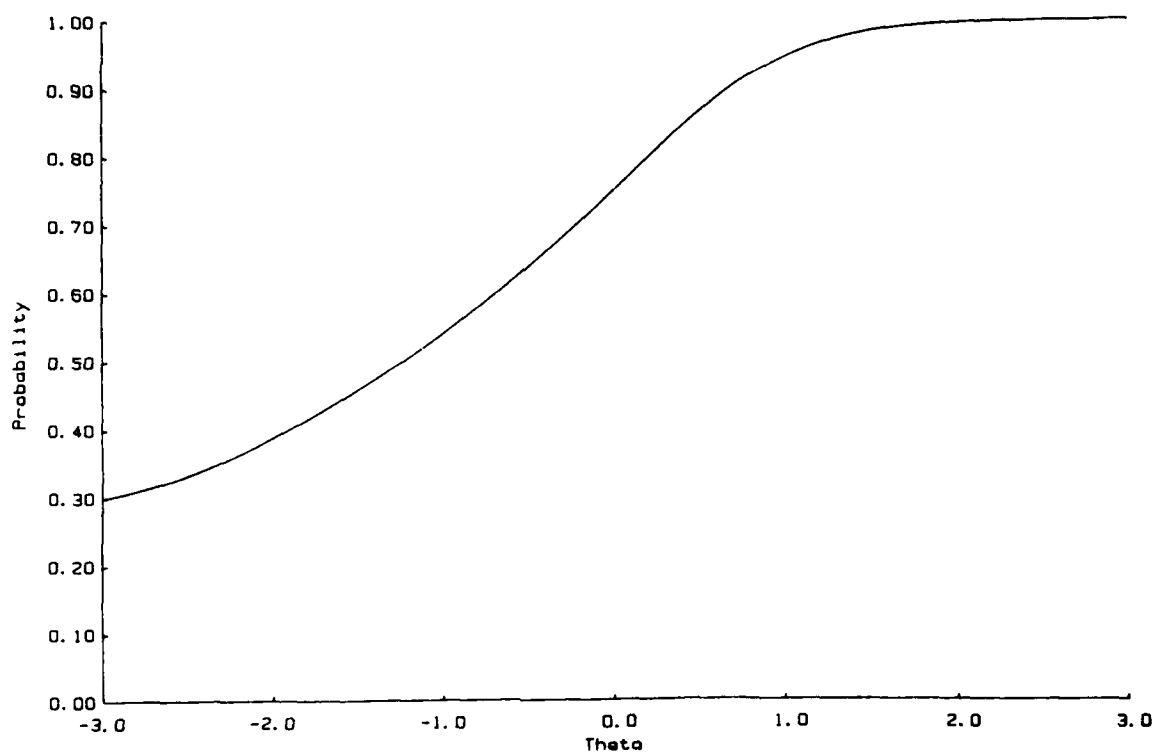


Figure 8-132. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13b (Female Sample).

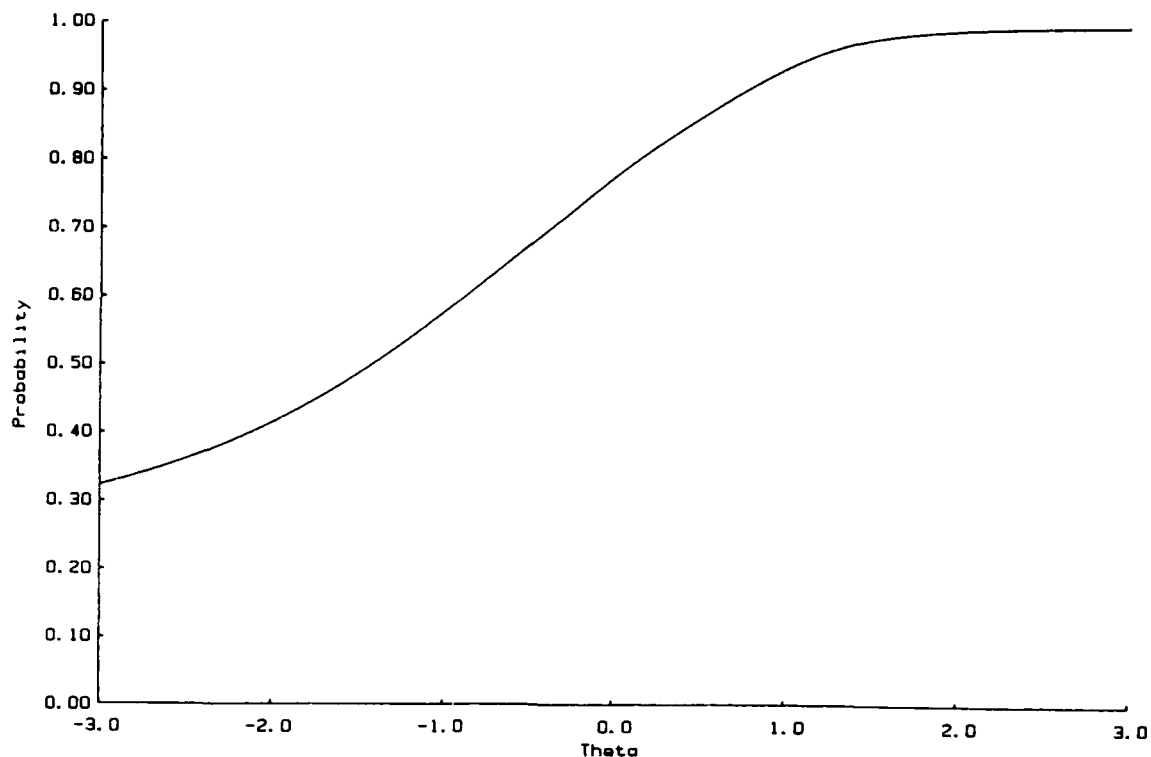


Figure 8-133. Test Characteristic Curve for Word Knowledge Subtest on ASVAB Form 13c (Female Sample).

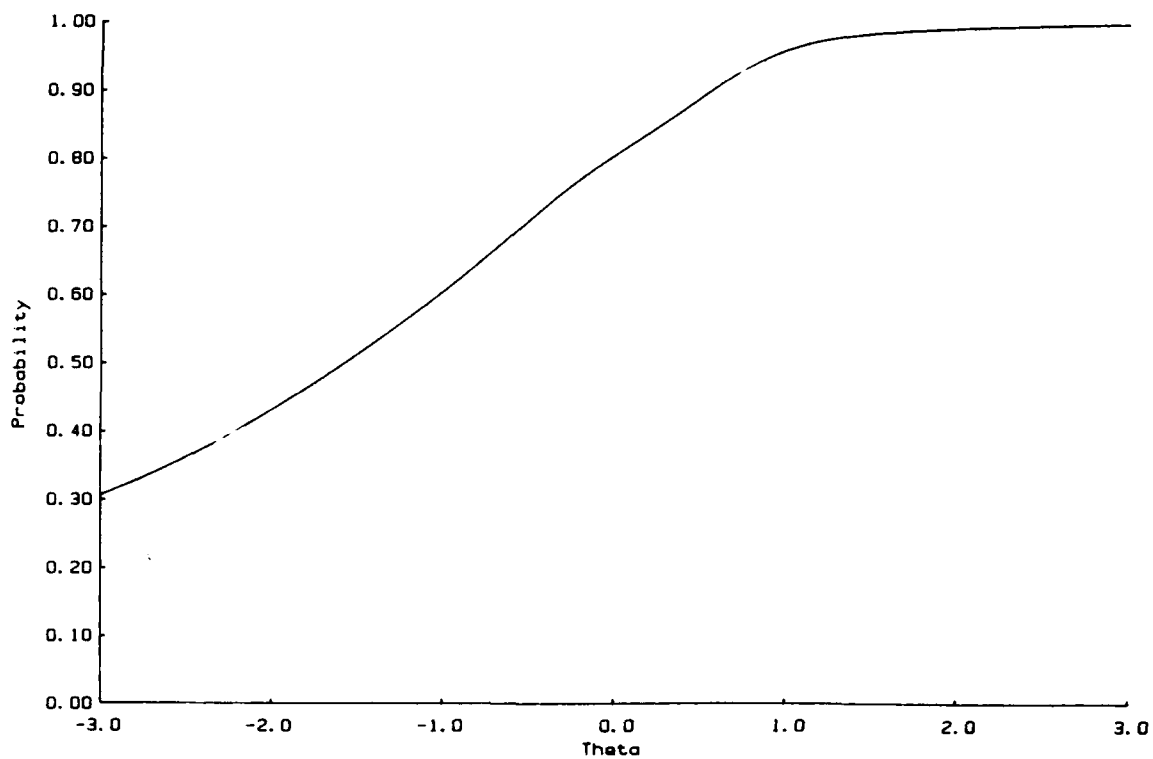


Figure 8-134. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 11a (Female Sample).

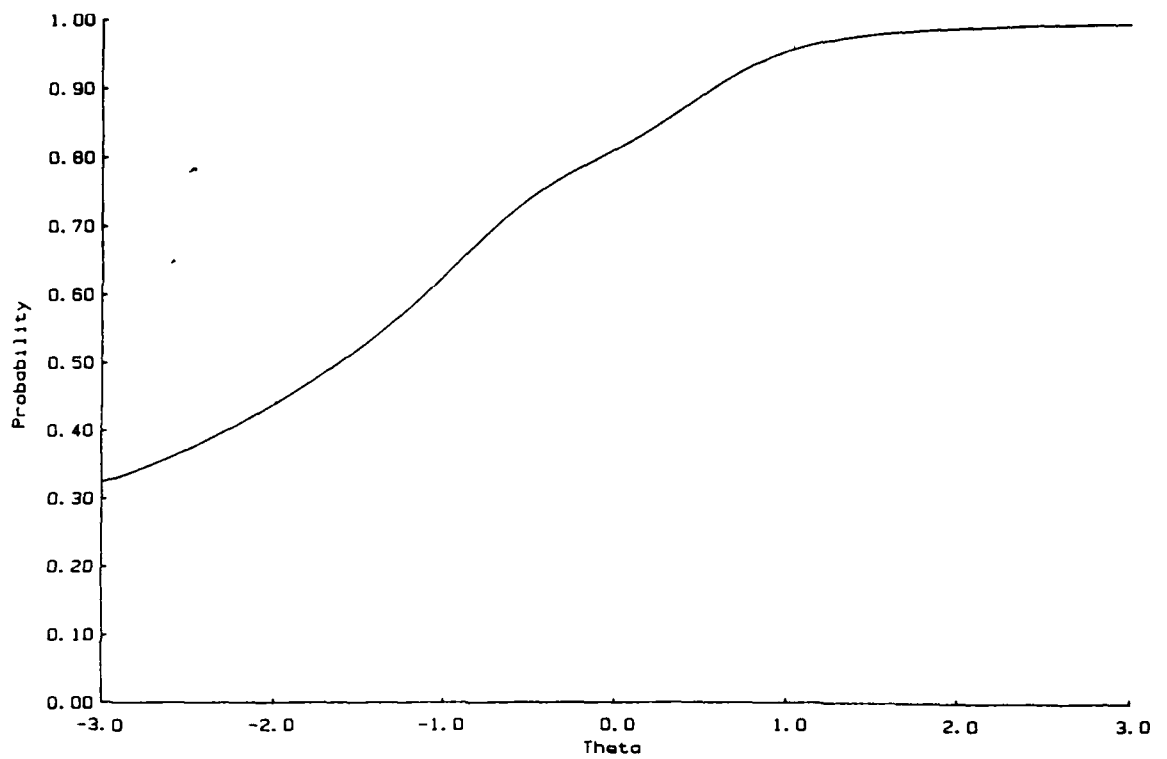


Figure 8-135. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 11b (Female Sample).

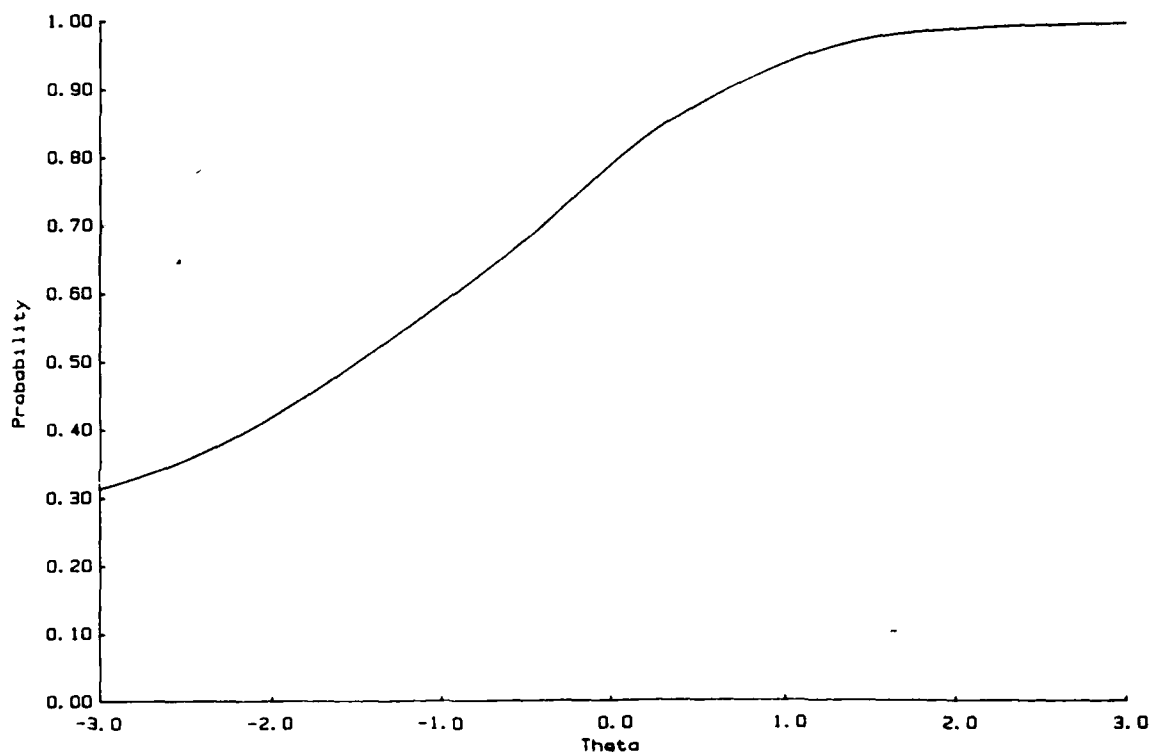


Figure 8-136. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 12a (Female Sample).

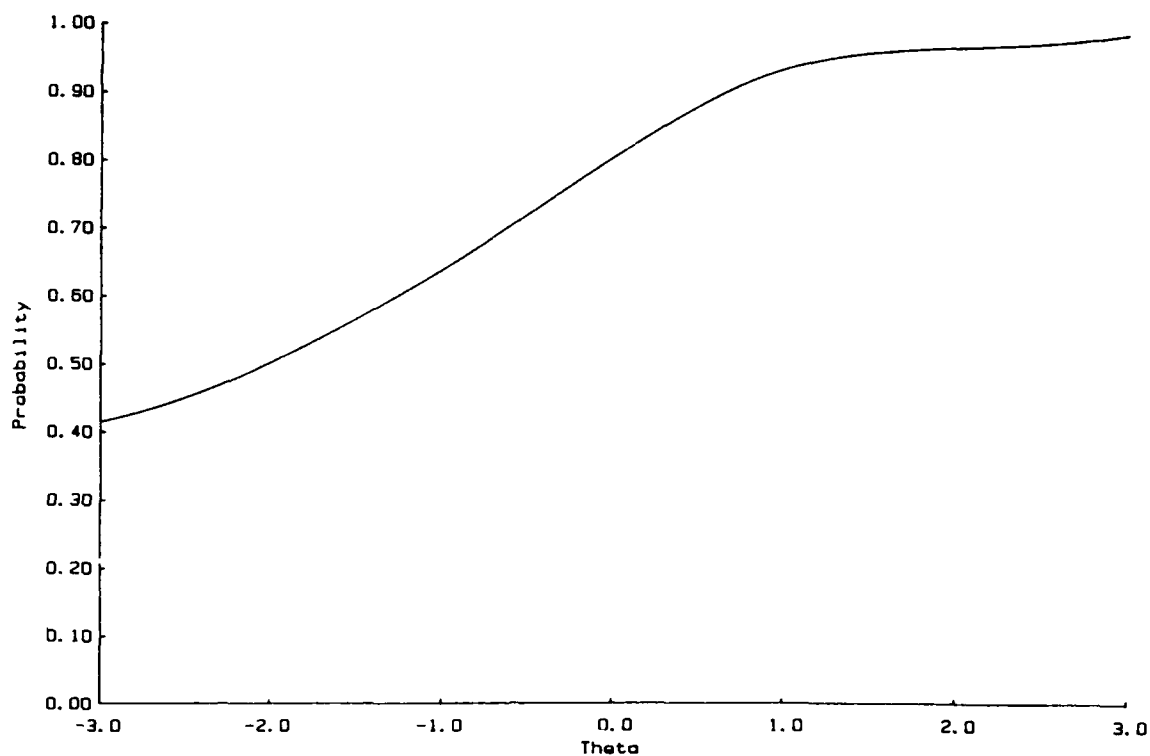


Figure 8-137. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 12b (Female Sample).

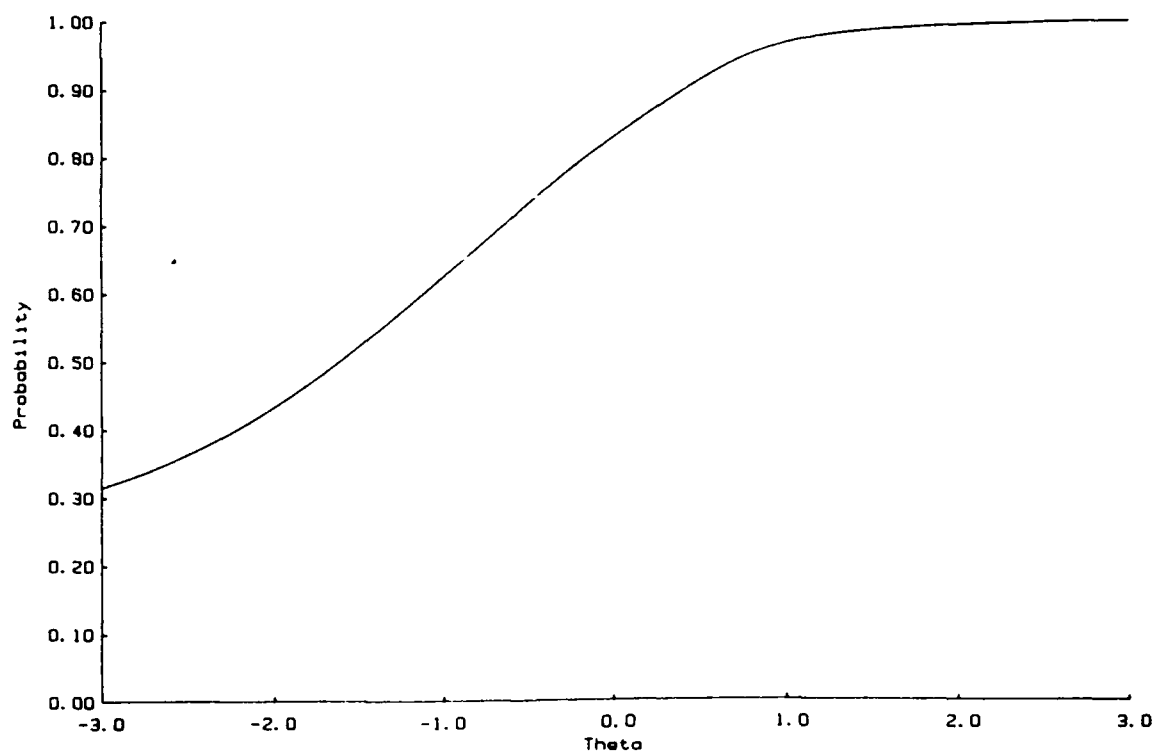


Figure 8-138. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13a (Female Sample).



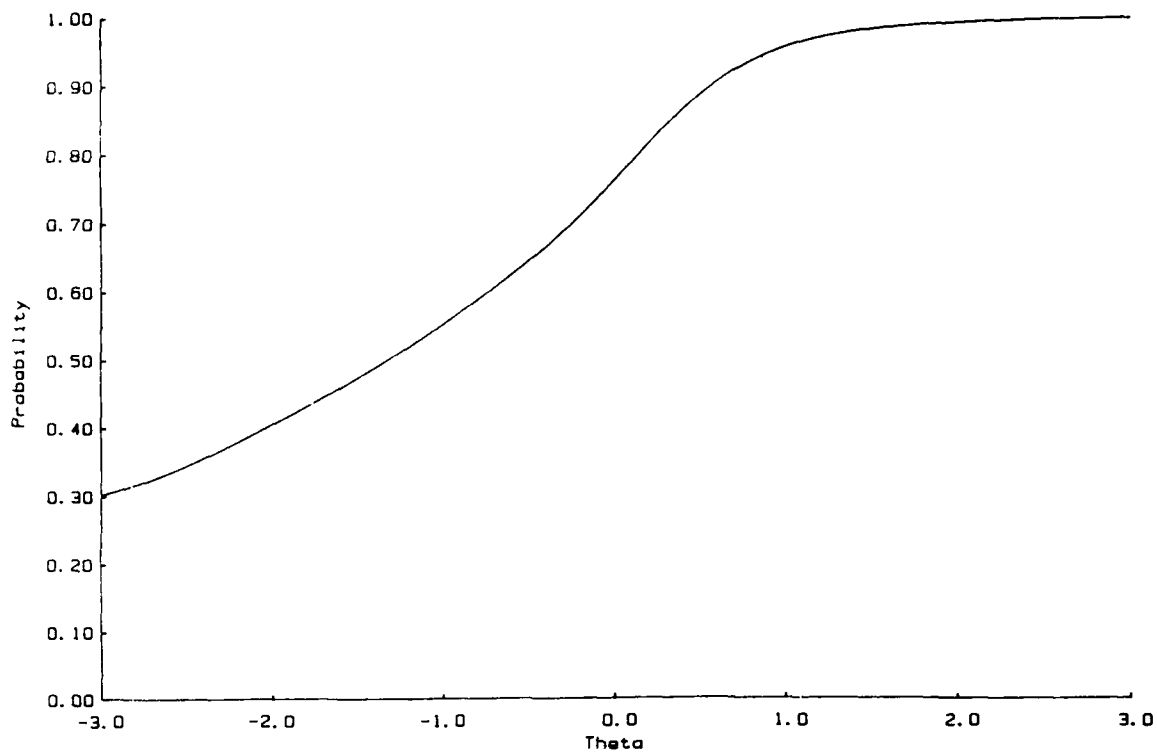


Figure 8-139. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13b (Female Sample).

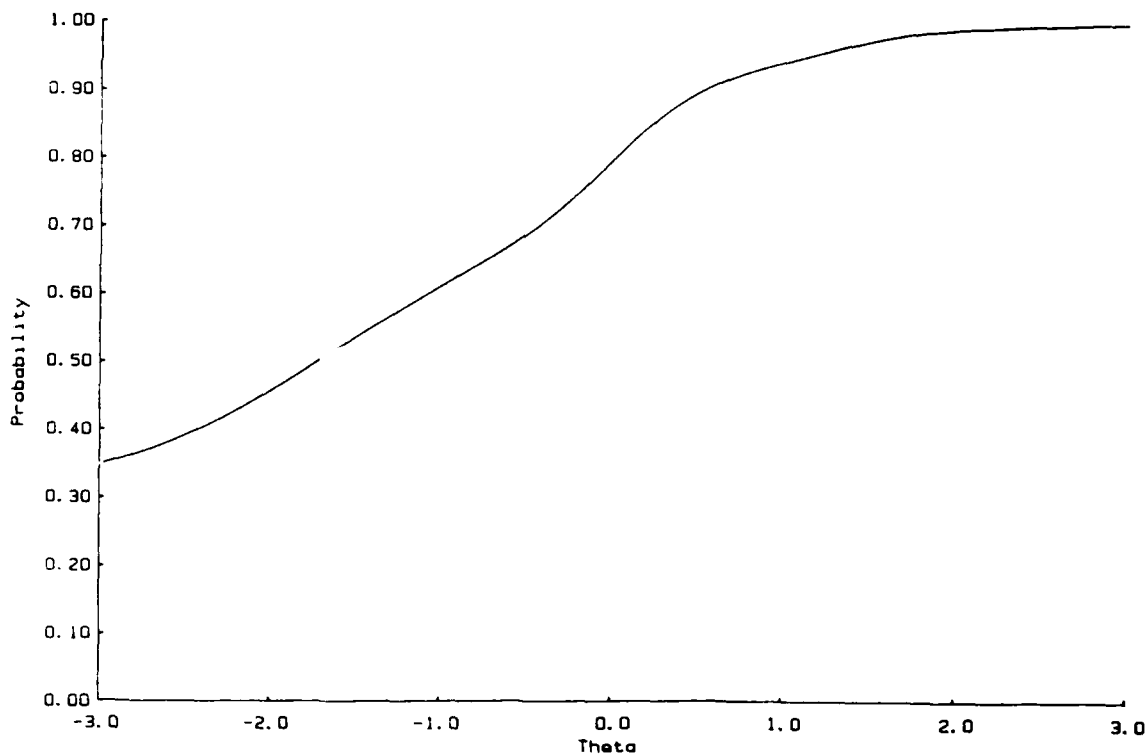


Figure 8-140. Test Characteristic Curve for Paragraph Comprehension Subtest on ASVAB Form 13c (Female Sample).

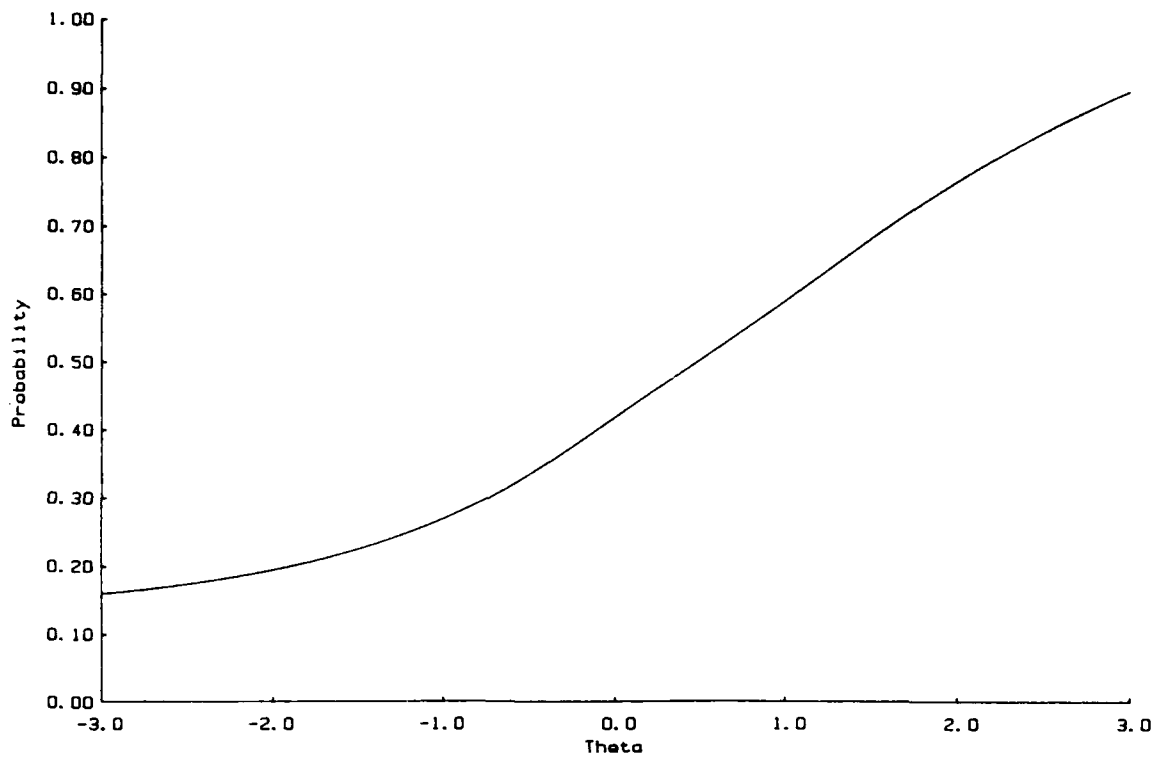


Figure B-141. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 11a (Female Sample).

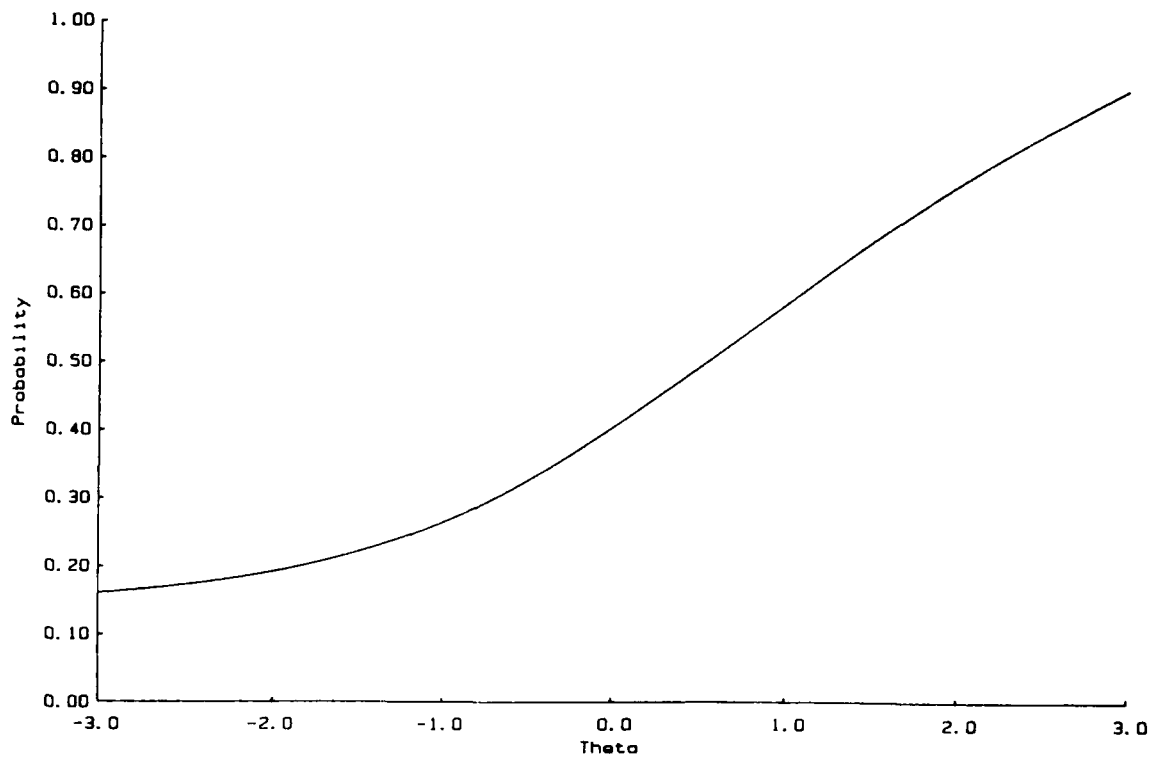


Figure B-142. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 11b (Female Sample).

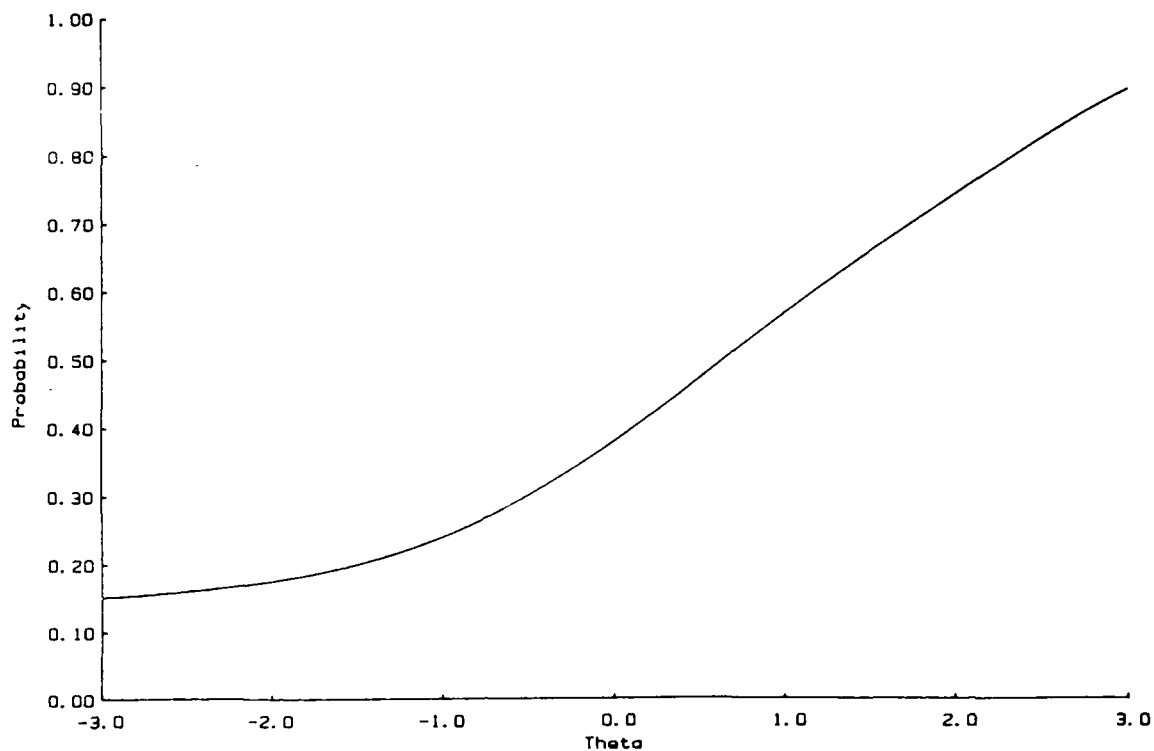


Figure B-143. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 12a (Female Sample).

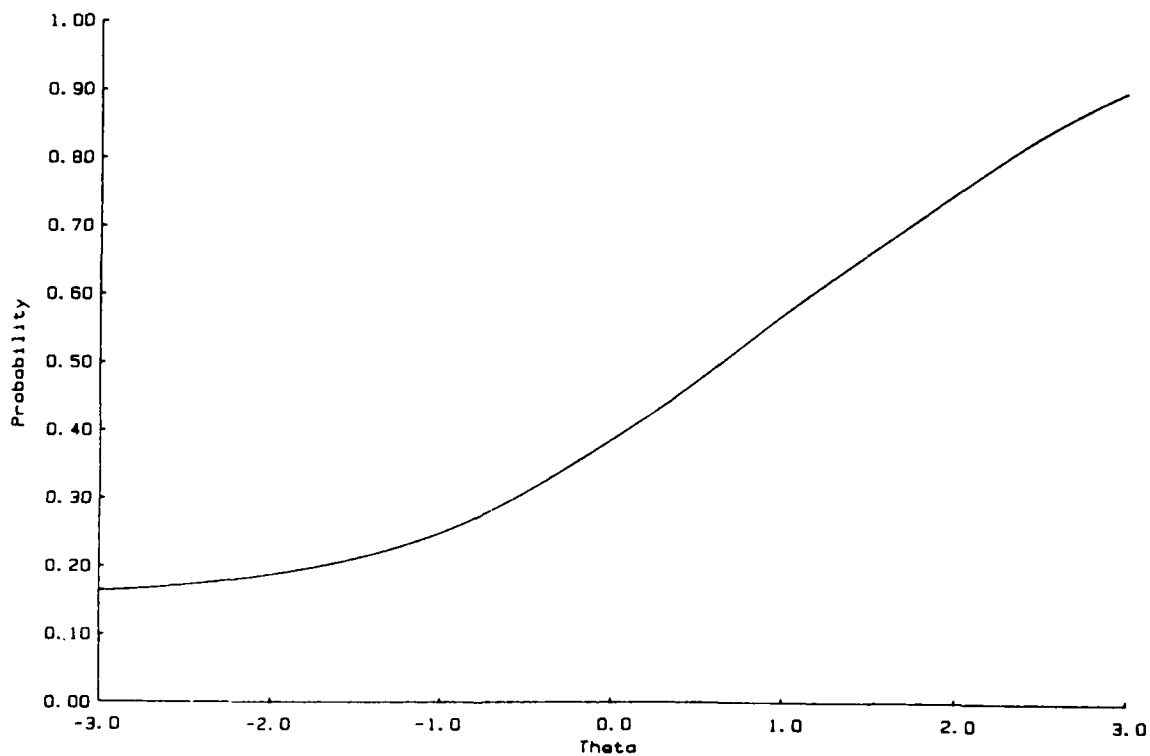


Figure B-144. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 12b (Female Sample).

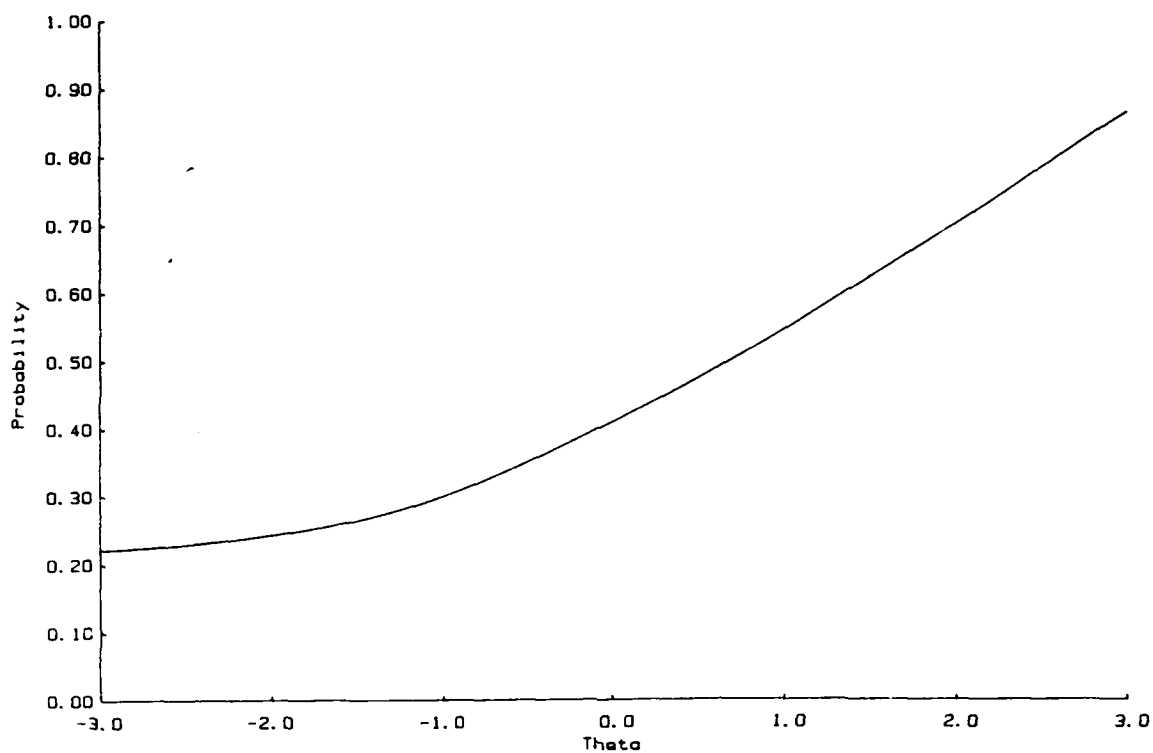


Figure 8-145. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13a (Female Sample).

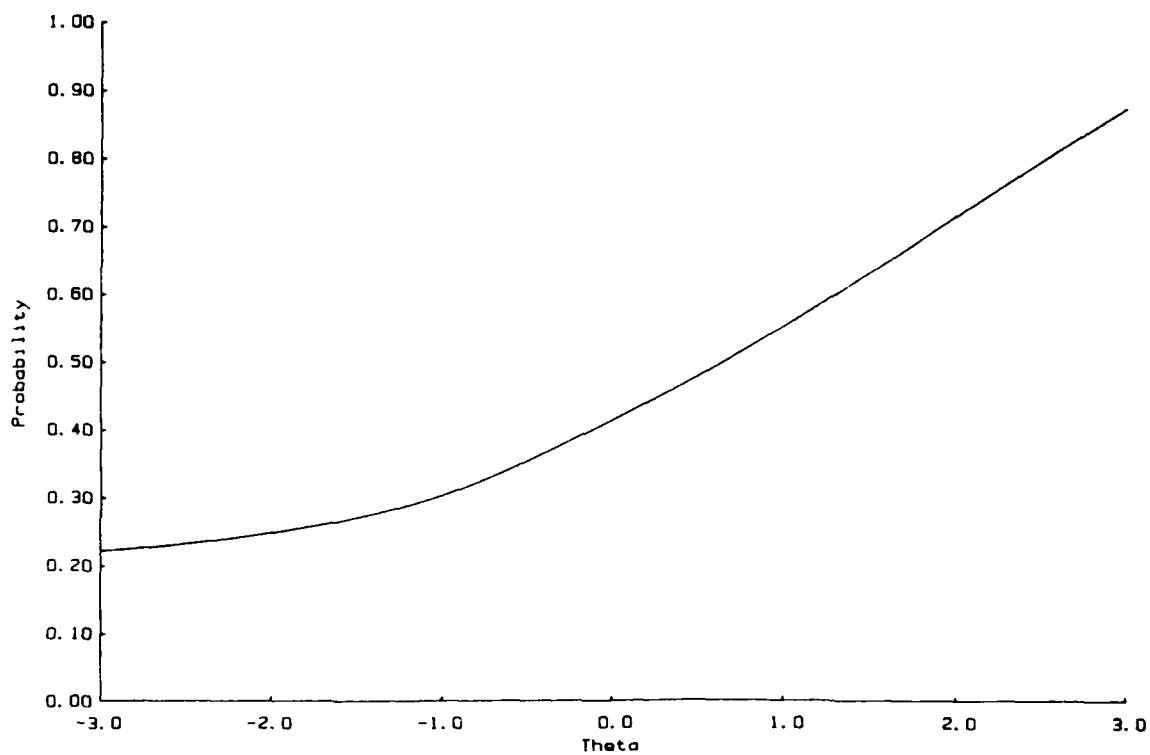


Figure 8-146. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13b (Female Sample).

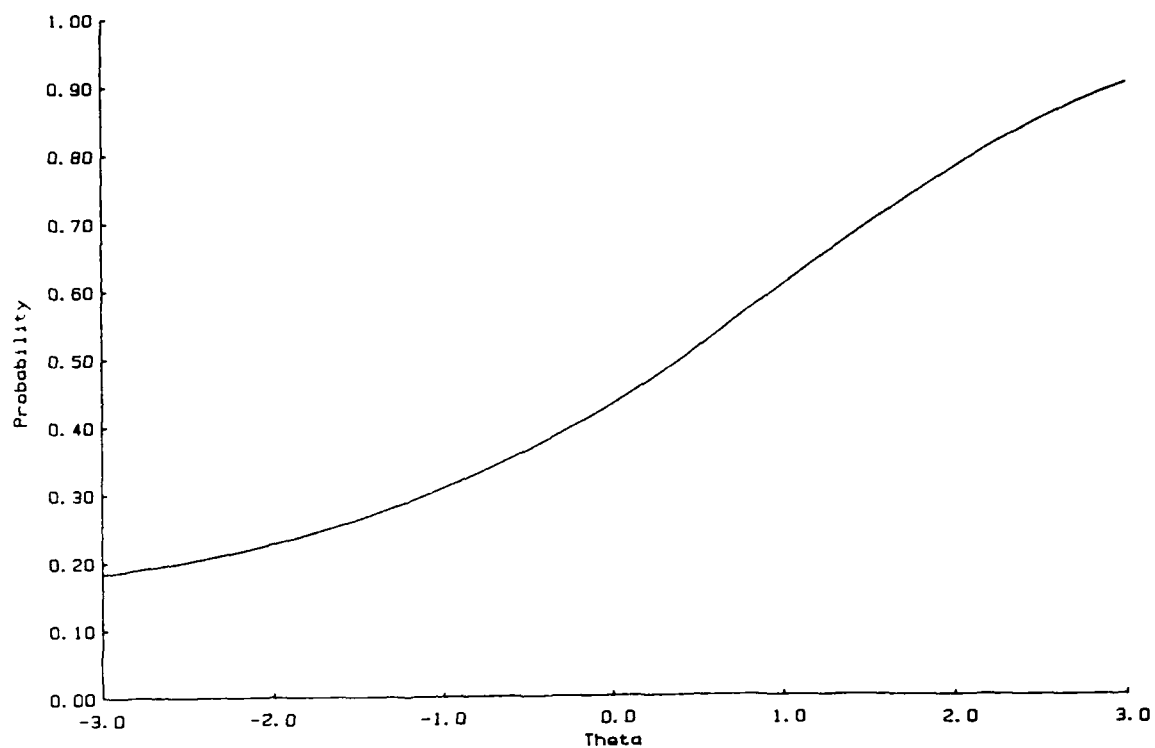


Figure B-147. Test Characteristic Curve for Auto and Shop Information Subtest on ASVAB Form 13c (Female Sample).

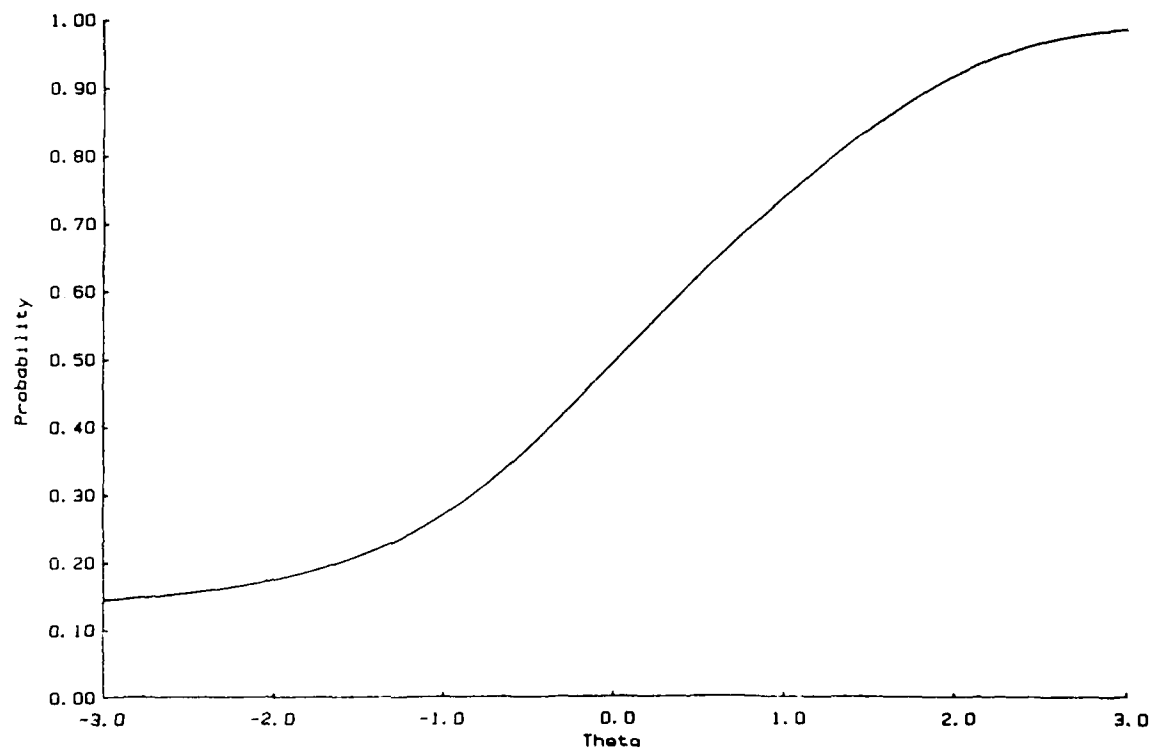


Figure B-148. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 11a (Female Sample).

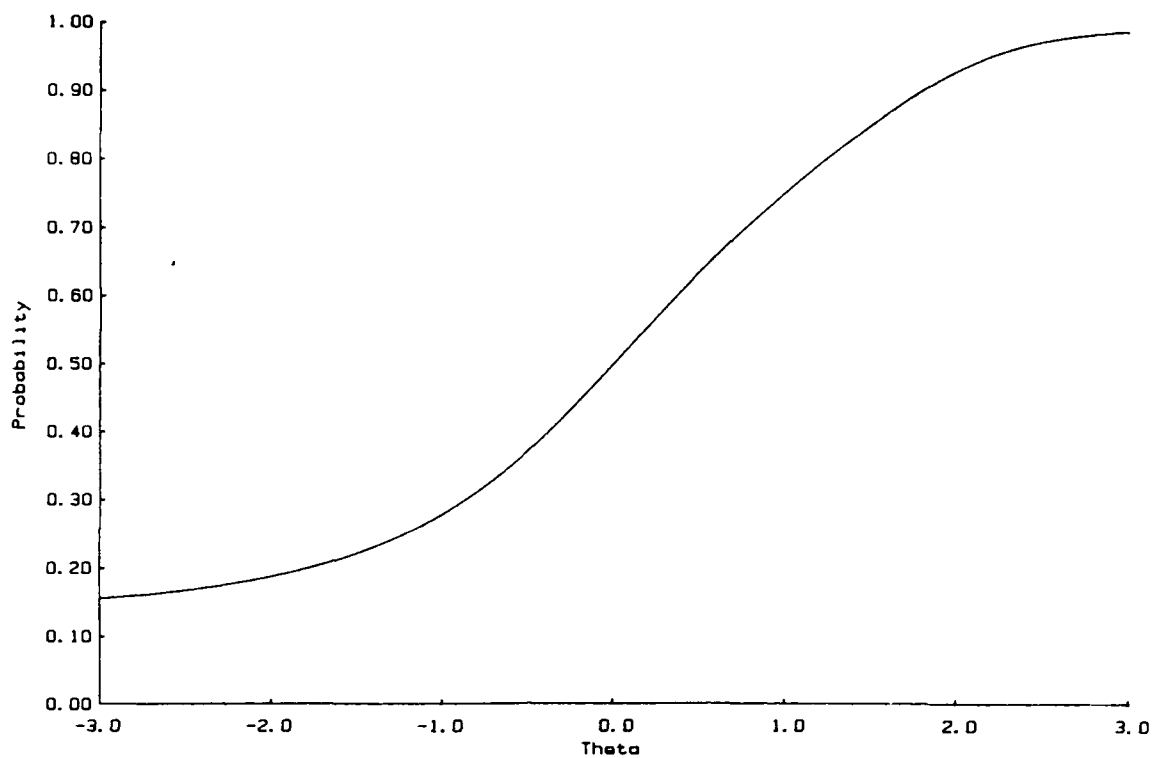


Figure 8-149. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 11b (Female Sample).

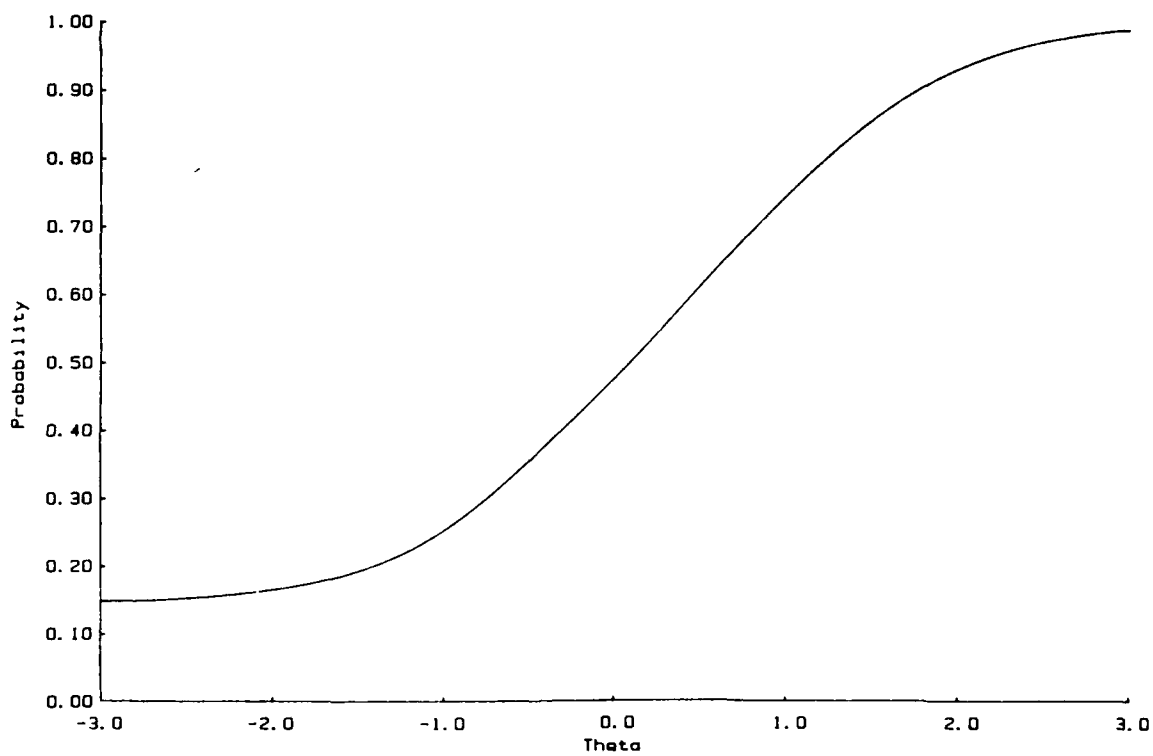


Figure 8-150. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 12a (Female Sample).

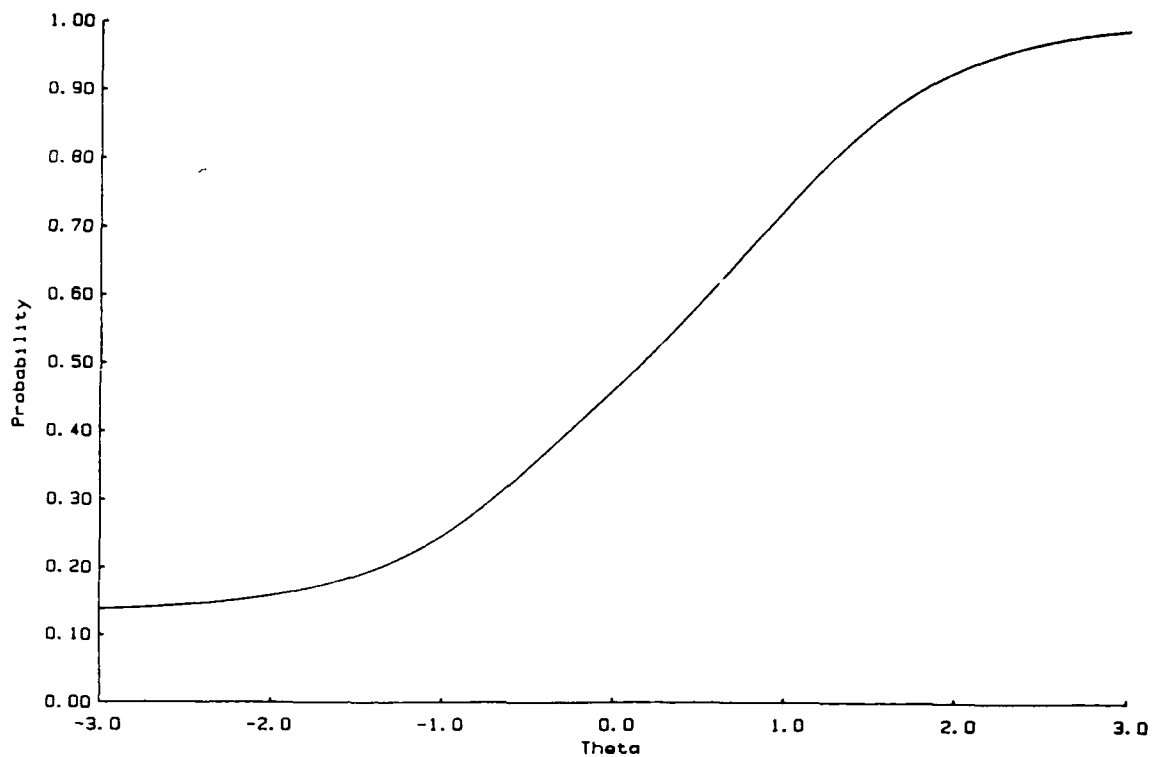


Figure 8-151. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 12b (Female Sample).

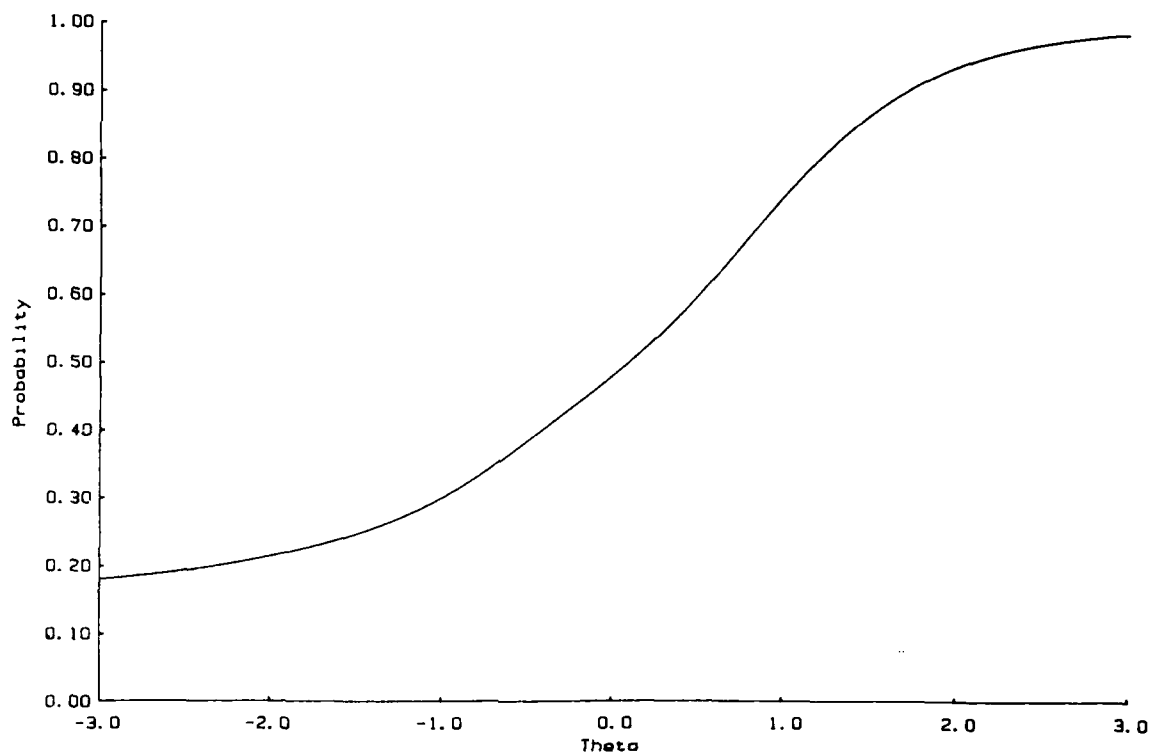


Figure 8-152. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13a (Female Sample).

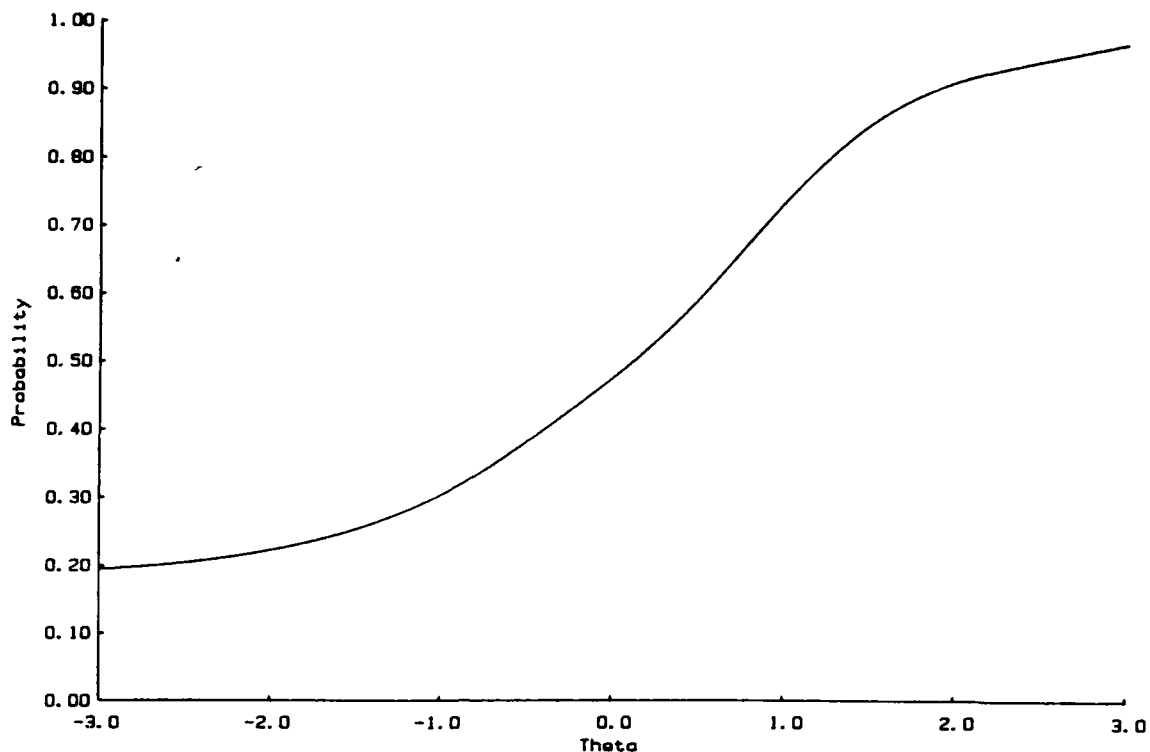


Figure B-153. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13b (Female Sample).

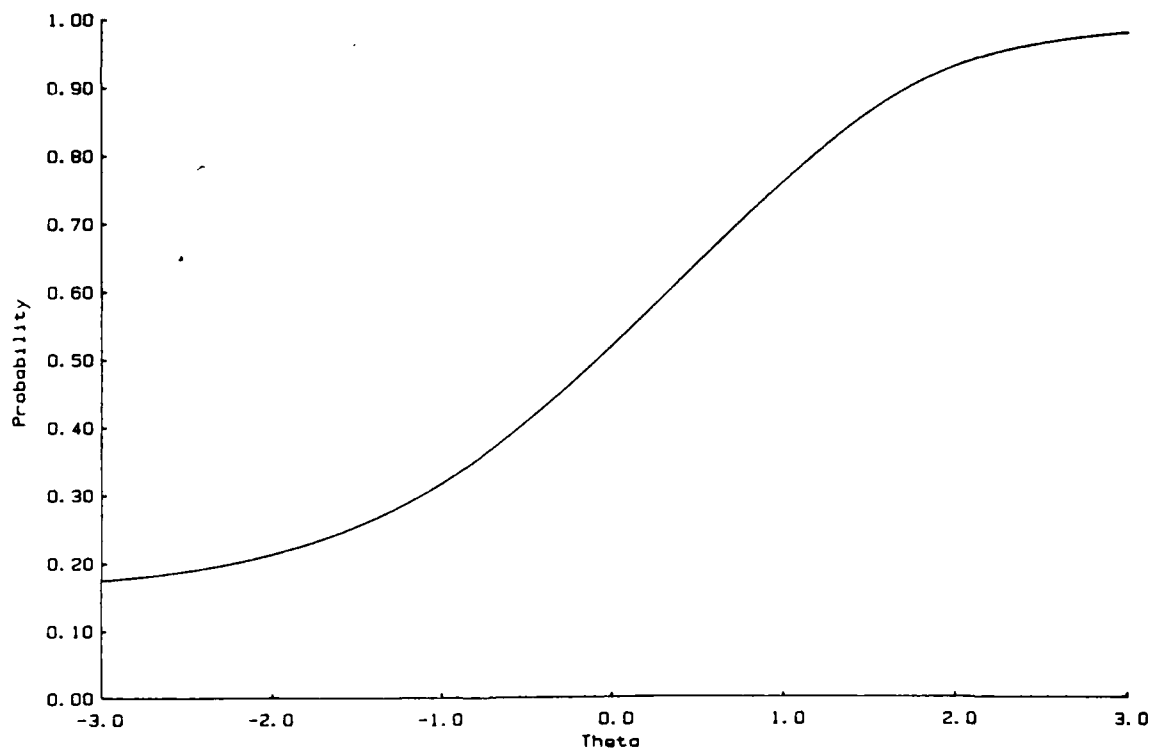


Figure B-154. Test Characteristic Curve for Mathematics Knowledge Subtest on ASVAB Form 13c (Female Sample).



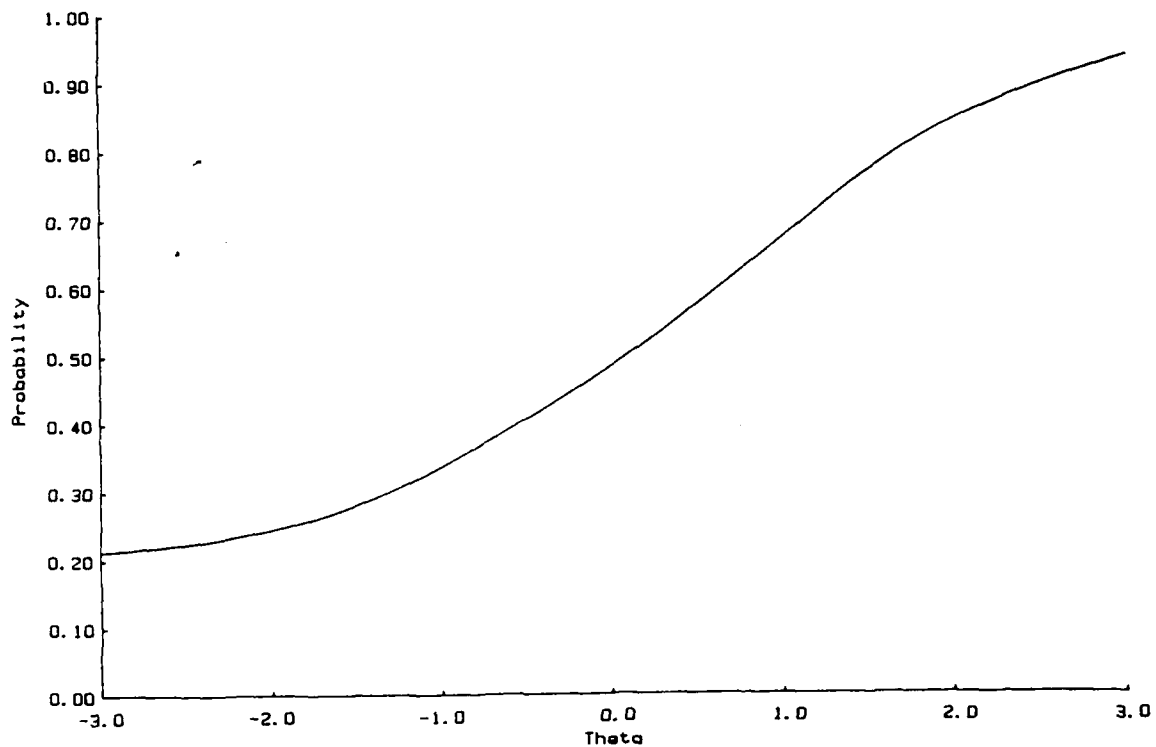


Figure 8-155. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 11a (Female Sample).

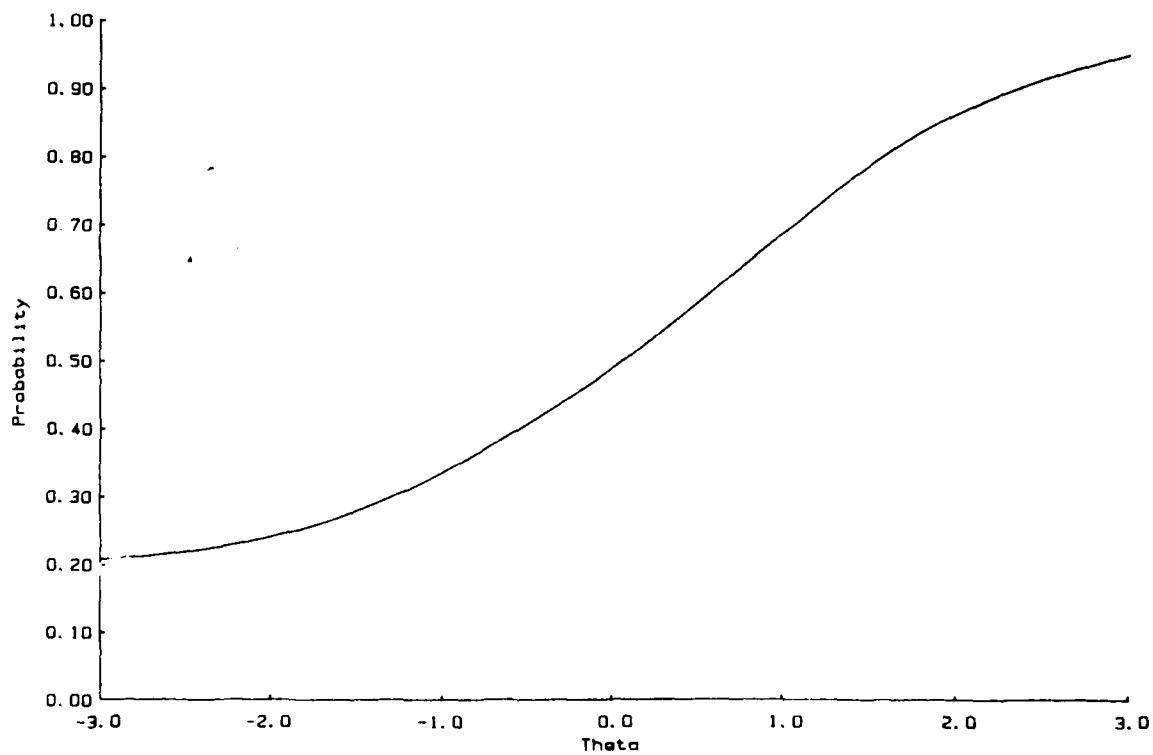


Figure 8-156. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 11b (Female Sample).

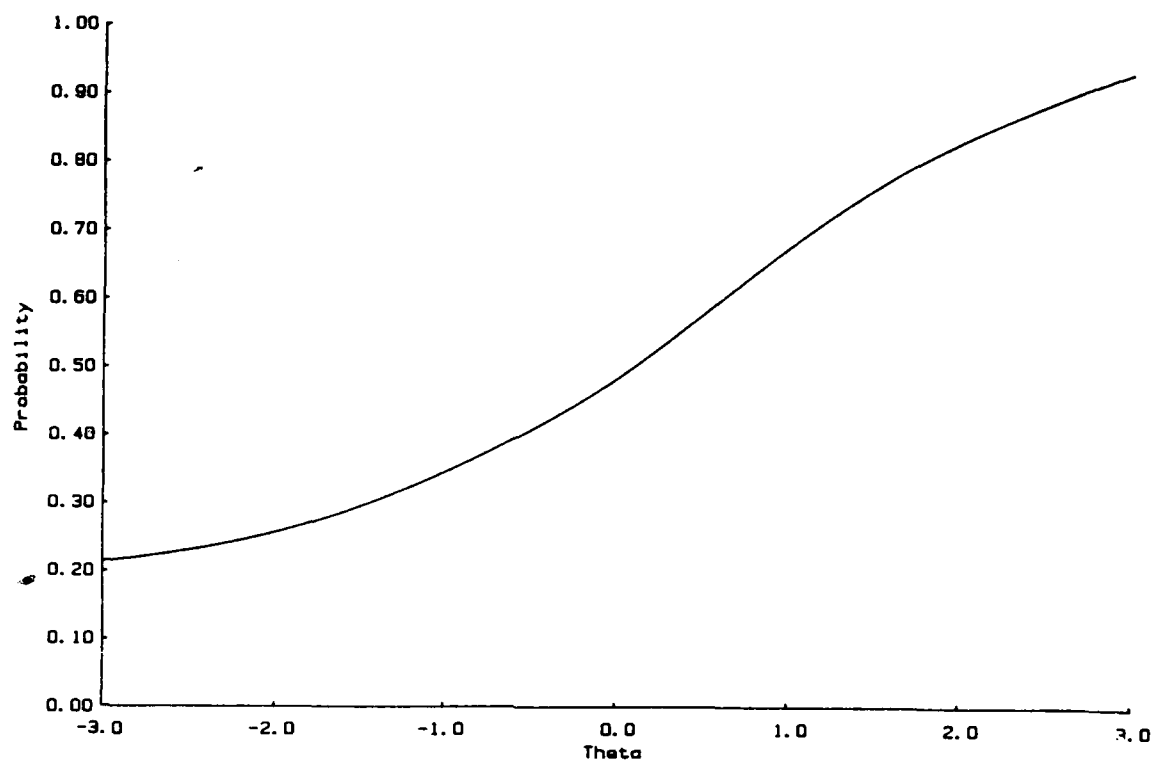


Figure 8-157. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 12a (Female Sample).

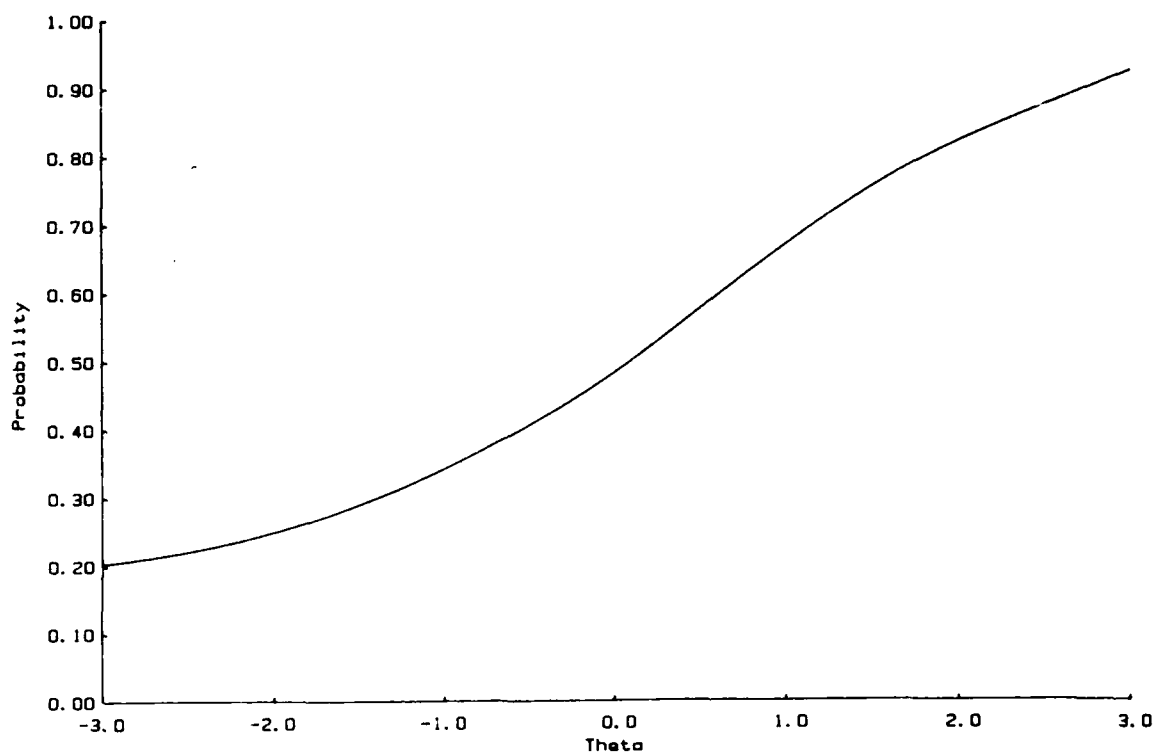


Figure 8-158. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 12b (Female Sample).

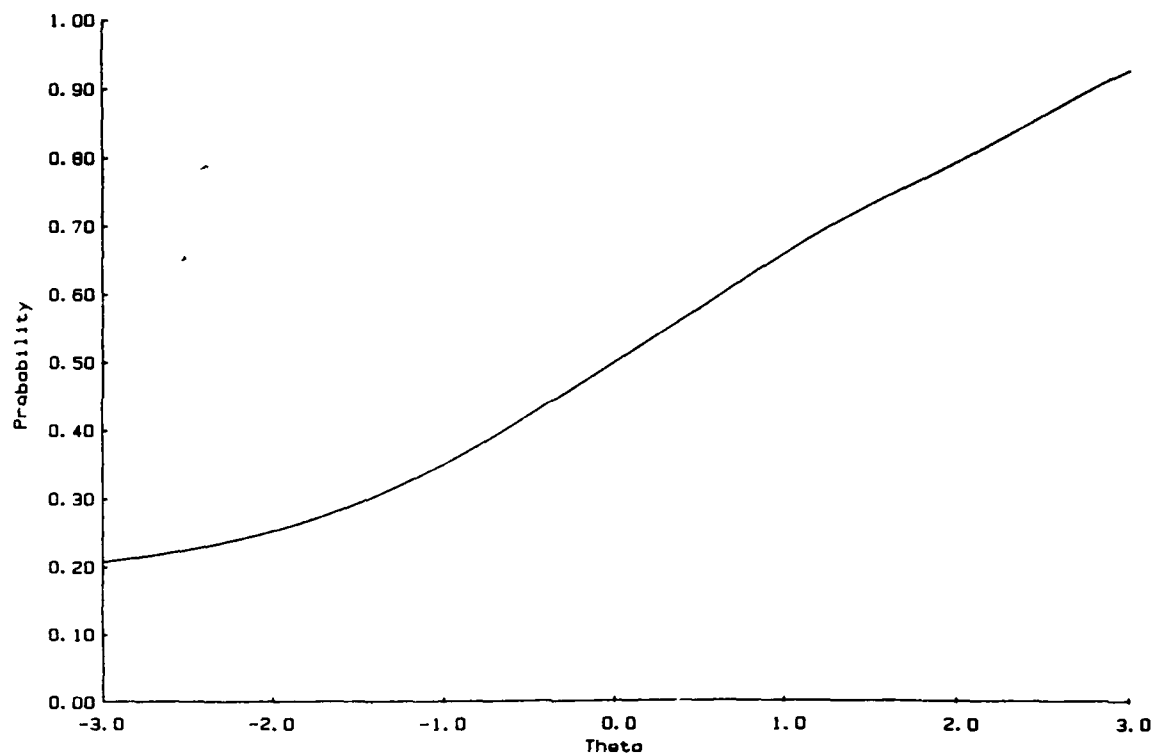


Figure B-159. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13a (Female Sample).

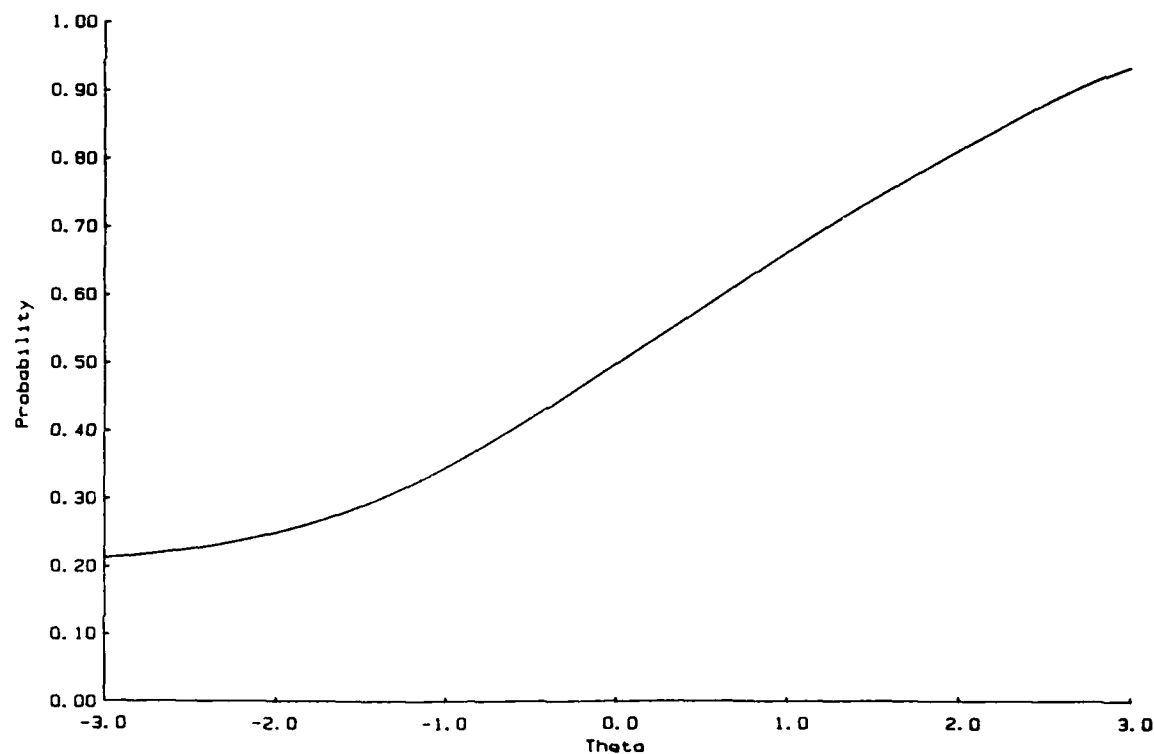


Figure B-160. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13b (Female Sample).

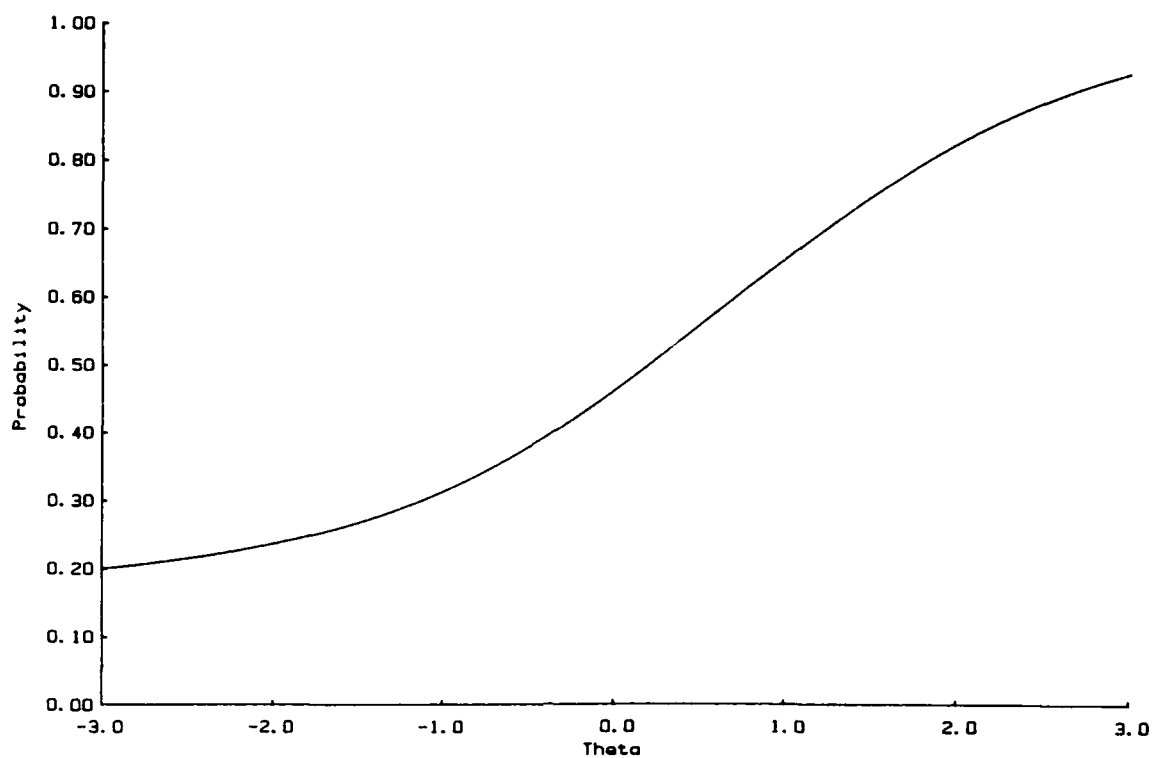


Figure 8-161. Test Characteristic Curve for Mechanical Comprehension Subtest on ASVAB Form 13c (Female Sample).

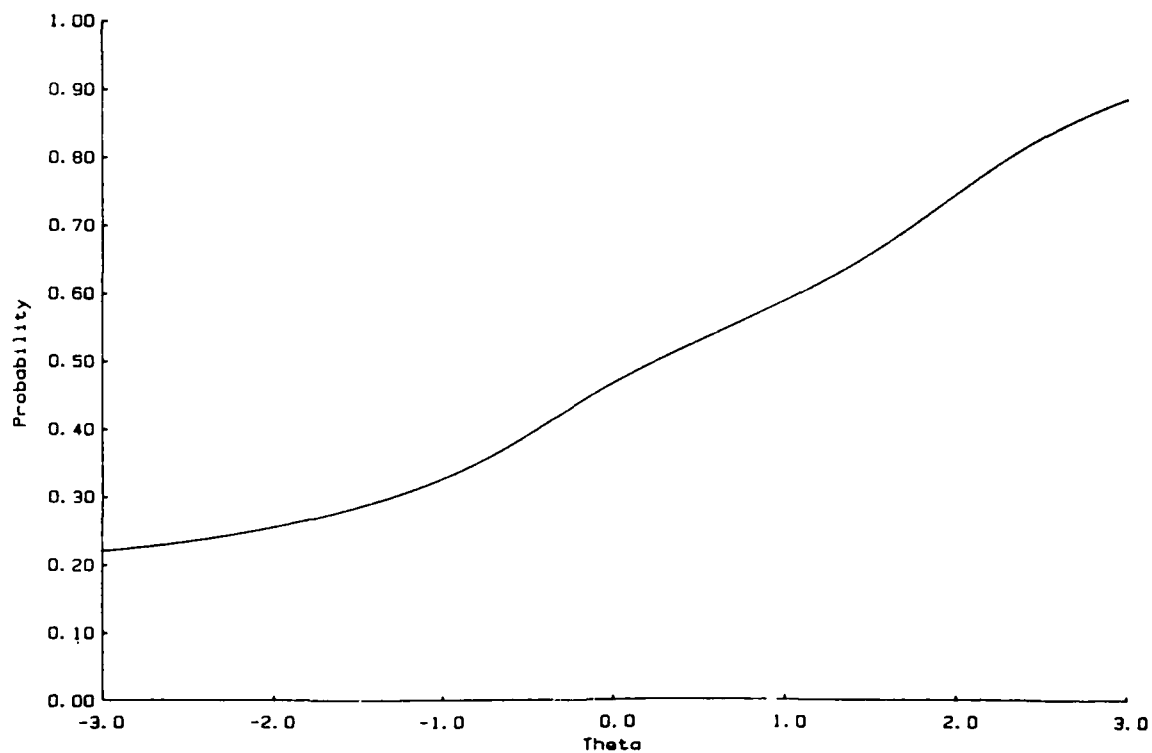


Figure 8-162. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 11a (Female Sample).

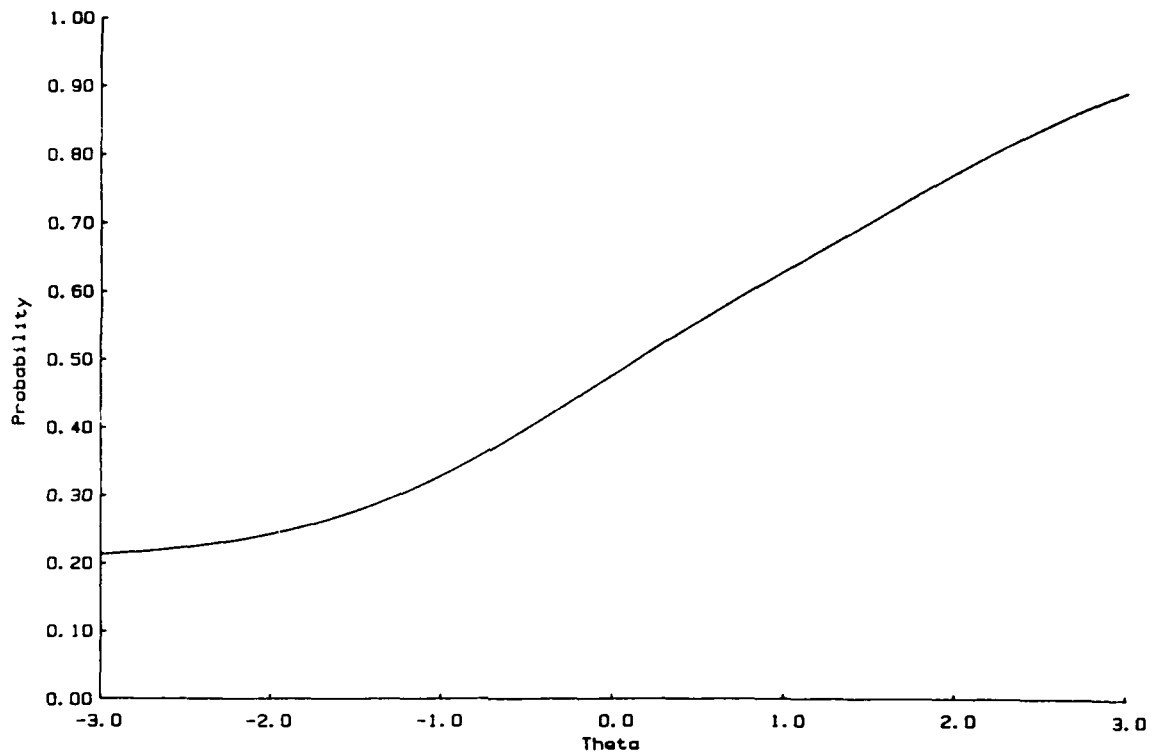


Figure 8-163. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 11b (Female Sample).

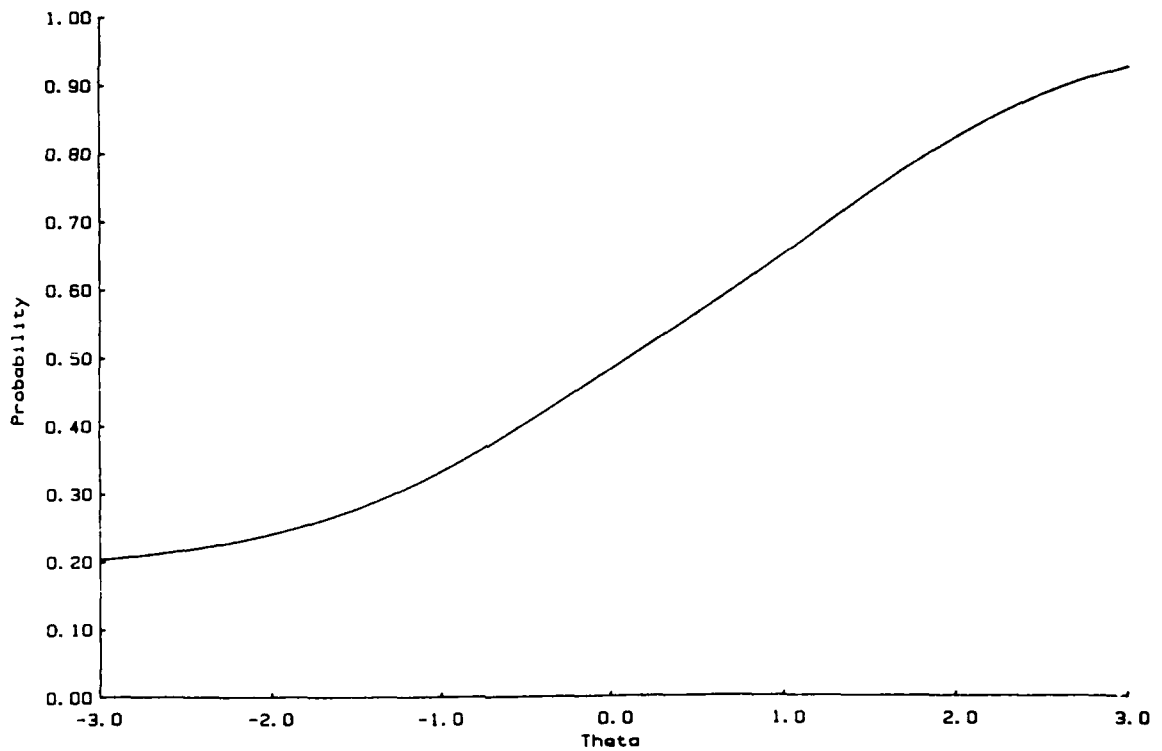


Figure 8-164. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 12a (Female Sample).

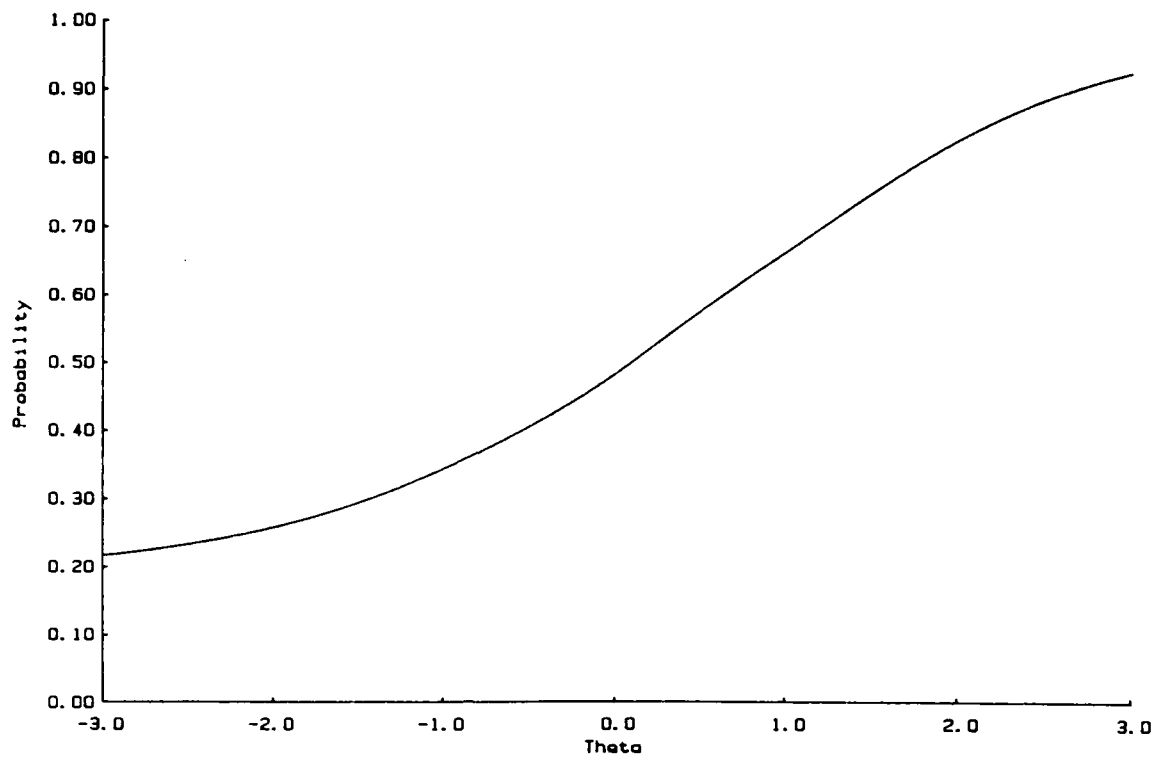


Figure 8-165. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 12b (Female Sample).

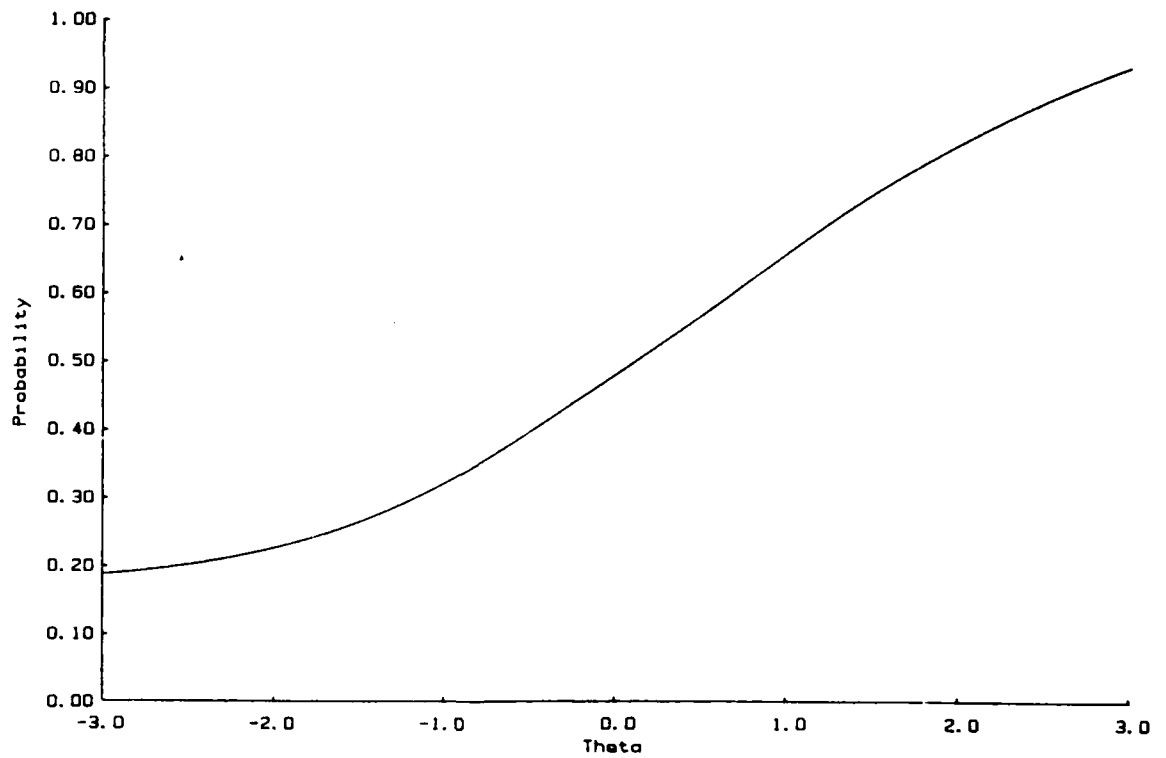


Figure 8-166. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13a (Female Sample).

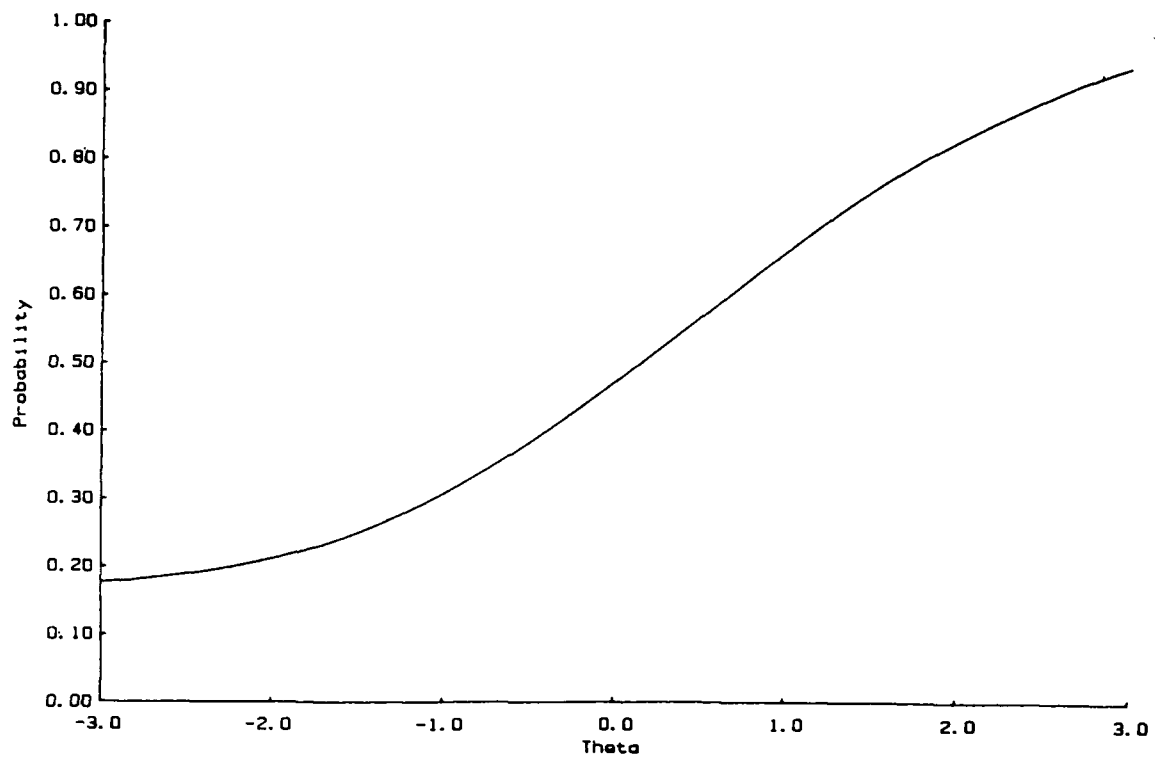


Figure B-167. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13b (Female Sample).

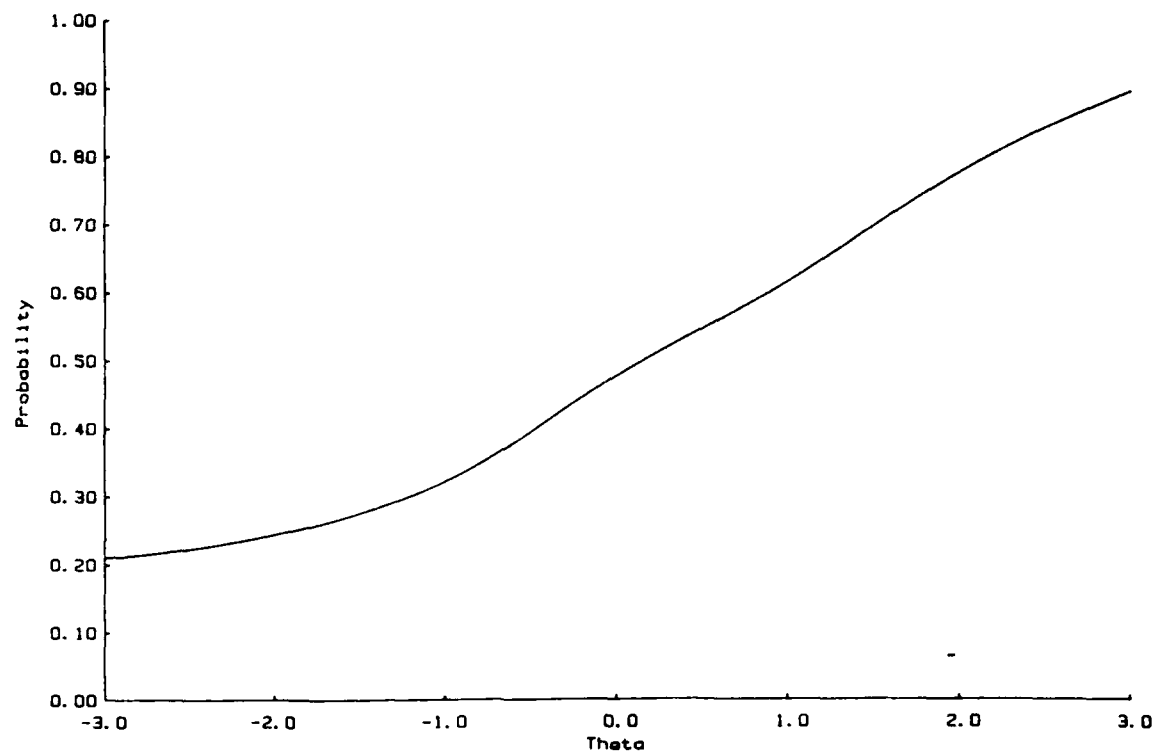


Figure B-168. Test Characteristic Curve for Electronics Information Subtest on ASVAB Form 13c (Female Sample).

APPENDIX C: SUMMARY STATISTICS (Subtests)



Table C-1. Total Sample Summary Score Statistics for General Science

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	16.177	16.138	16.695	16.743	16.498	16.356	15.933	16.434
Variance	25.698	25.417	22.522	21.940	26.383	27.330	19.627	24.881
Std. Dev.	5.069	5.042	4.746	4.684	5.136	5.228	4.430	4.984
Skew	-0.260	-0.255	-0.203	-0.199	-0.319	-0.302	-0.087	-0.256
Kurtosis	-0.662	-0.653	-0.683	-0.706	-0.695	-0.695	-0.526	-0.682
Minimum	1.000	0.000	1.000	1.000	1.000	0.000	1.000	0.666
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	24.000	25.000	24.000	24.000	24.000	25.000	24.000	24.333
Median	16.000	16.000	17.000	17.000	17.000	17.000	16.000	NA
Mode	16.000	18.000	19.000	17.000	19.000	16.000	16.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-2. Male Sample Summary Score Statistics for General Science

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	18.820	18.672	19.020	19.016	19.291	19.152	17.813	18.995
Variance	46.592	45.251	42.588	46.857	39.225	40.333	41.641	43.474
Std. Dev.	6.826	6.727	6.526	6.845	6.263	6.351	6.453	6.589
Skew	-0.119	-0.109	-0.072	-0.184	-0.071	-0.192	0.102	-0.124
Kurtosis	-1.016	-0.968	-1.037	-0.982	-0.927	-0.784	-0.942	-0.952
Minimum	1.000	1.000	2.000	1.000	2.000	1.000	2.000	1.333
Maximum	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Range	29.000	29.000	28.000	29.000	28.000	29.000	28.000	28.666
Median	19.000	19.000	19.000	19.000	19.000	19.000	17.000	NA
Mode	16.000	20.000	20.000	29.000	16.000	20.000	16.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-3. Female Sample Summary Score Statistics for General Science

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	25.360	25.258	25.318	25.427	25.176	25.762	26.620	25.383
Variance	50.690	44.617	49.286	48.068	47.285	46.767	36.429	47.785
Std. Dev.	7.120	6.680	7.020	6.933	6.876	6.839	6.036	6.911
Skew	-0.551	-0.497	-0.666	-0.541	-0.464	-0.596	-0.776	-0.552
Kurtosis	-0.552	-0.462	-0.320	-0.545	-0.601	-0.363	0.193	-0.473
Minimum	1.000	1.000	1.000	2.000	2.000	2.000	4.000	1.500
Maximum	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000
Range	34.000	34.000	34.000	33.000	33.000	33.000	31.000	33.500
Median	26.000	26.000	27.000	26.000	26.000	27.000	28.000	NA
Mode	35.000	34.000	31.000	35.000	35.000	35.000	29.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-4. Total Sample Summary Score Statistics for Paragraph Comprehension

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	11.236	10.858	10.370	11.644	11.283	11.018	11.288	11.068
Variance	9.308	9.754	9.860	8.584	9.729	9.823	7.481	9.509
Std. Dev.	3.051	3.123	3.140	2.930	3.119	3.134	2.735	3.082
Skew	-0.661	-0.581	-0.408	-0.930	-0.809	-0.691	-0.907	-0.680
Kurtosis	-0.270	-0.410	-0.573	0.317	-0.012	-0.241	0.438	-0.198
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000
Range	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000
Median	12.000	11.000	11.000	12.000	12.000	12.000	12.000	NA
Mode	15.000	14.000	11.000	14.000	15.000	14.000	13.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-5. Total Sample Summary Score Statistics for Numerical Operations

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	37.355	38.330	34.689	35.733	37.172	36.274	38.579	36.592
Variance	70.911	76.708	80.524	80.945	78.014	77.014	76.482	77.352
Std. Dev.	8.421	8.758	8.974	8.997	8.833	8.776	8.745	8.793
Skew	-0.437	-0.554	-0.314	-0.396	-0.339	-0.327	-0.628	-0.394
Kurtosis	-0.074	-0.249	-0.358	-0.267	-0.469	-0.276	-0.125	-0.282
Minimum	0.000	0.000	1.000	1.000	1.000	1.000	1.000	0.666
Maximum	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Range	50.000	50.000	49.000	49.000	49.000	49.000	49.000	49.333
Median	37.000	39.000	35.000	36.000	37.000	36.000	40.000	NA
Mode	50.000	50.000	35.000	38.000	50.000	50.000	50.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-6. Total Sample Summary Score Statistics for Coding Speed

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	49.689	49.804	50.047	50.380	49.901	50.667	49.104	50.081
Variance	171.189	164.720	175.117	172.193	169.678	168.795	163.534	170.282
Std. Dev.	13.084	12.834	13.233	13.122	13.026	12.992	12.788	13.048
Skew	-0.105	-0.088	-0.195	-0.124	-0.121	-0.100	-0.139	-0.122
Kurtosis	0.281	0.336	0.351	0.346	0.334	0.357	0.447	0.334
Minimum	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.333
Maximum	84.000	84.000	84.000	84.000	84.000	84.000	84.000	84.000
Range	83.000	84.000	84.000	83.000	84.000	84.000	84.000	83.666
Median	50.000	50.000	50.000	51.000	50.000	51.000	49.000	NA
Mode	56.000	56.000	56.000	56.000	56.000	56.000	49.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-7. Total Sample Summary Score Statistics for Auto and Shop Information

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	15.667	15.565	15.098	15.255	15.756	15.716	15.448	15.509
Variance	31.318	31.302	31.473	30.880	28.894	29.123	26.921	30.498
Std. Dev.	5.596	5.595	5.610	5.557	5.375	5.397	5.189	5.521
Skew	-0.205	-0.198	-0.224	-0.236	-0.052	-0.065	-0.077	-0.163
Kurtosis	-0.902	-0.911	-0.968	-0.969	-1.052	-1.037	-0.943	-0.973
Minimum	0.000	1.000	0.000	0.000	2.000	2.000	1.000	0.833
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	25.000	24.000	25.000	25.000	23.000	23.000	24.000	24.166
Median	16.000	16.000	16.000	16.000	16.000	16.000	16.000	NA
Mode	16.000	20.000	19.000	21.000	14.000	12.000	16.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-8. Total Sample Summary Score Statistics for Mathematics Knowledge

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	12.925	12.830	12.587	12.600	13.043	12.993	13.172	12.829
Variance	34.452	35.049	39.159	39.387	33.215	33.750	31.017	35.835
Std. Dev.	5.870	5.920	6.258	6.276	5.763	5.809	5.569	5.982
Skew	0.394	0.375	0.322	0.312	0.357	0.367	0.374	0.354
Kurtosis	-0.846	-0.864	-1.010	-1.023	-0.886	-0.896	-0.835	-0.920
Minimum	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.166
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	25.000	25.000	25.000	25.000	24.000	25.000	25.000	24.833
Median	12.000	12.000	12.000	12.000	12.000	12.000	12.000	NA
Mode	9.000	8.000	6.000	7.000	9.000	9.000	10.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-9. Total Sample Summary Score Statistics for Mechanical Comprehension

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	15.172	15.272	15.309	15.350	15.416	15.272	15.080	15.298
Variance	23.443	23.424	23.934	23.835	22.667	22.661	25.826	23.327
Std. Dev.	4.842	4.840	4.892	4.882	4.761	4.760	5.082	4.829
Skew	-0.178	-0.213	-0.121	-0.127	-0.193	-0.188	-0.046	-0.170
Kurtosis	-0.744	-0.695	-0.805	-0.809	-0.634	-0.639	-0.908	-0.721
Minimum	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	24.000	24.000	24.000	24.000	24.000	24.000	24.000	24.000
Median	15.000	16.000	15.000	15.000	16.000	15.000	15.000	NA
Mode	17.000	17.000	14.000	15.000	16.000	18.000	14.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-10. Total Sample Summary Score Statistics for Electronics Information

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	11.598	11.841	12.473	12.593	12.171	12.010	11.895	12.114
Variance	16.139	16.076	16.410	15.853	15.930	16.537	15.045	16.157
Std. Dev.	4.017	4.010	4.051	3.982	3.991	4.067	3.879	4.019
Skew	0.114	0.062	-0.104	-0.107	-0.143	-0.135	-0.126	-0.052
Kurtosis	-0.781	-0.810	-0.752	-0.751	-0.674	-0.697	-0.680	-0.744
Minimum	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.166
Maximum	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Range	20.000	20.000	19.000	20.000	20.000	20.000	20.000	19.833
Median	11.000	12.000	13.000	13.000	12.000	12.000	12.000	NA
Mode	10.000	11.000	13.000	12.000	13.000	12.000	13.000	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-11. Total Sample Summary Score Statistics for AFQT Composites

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	74.094	73.953	72.053	73.954	74.336	74.070	75.010	73.743
Variance	306.028	284.300	297.345	299.681	283.777	289.097	247.097	293.371
Std. Dev.	17.494	16.861	17.244	17.311	16.846	17.003	15.719	17.126
Skew	-0.377	-0.330	-0.337	-0.413	-0.366	-0.432	-0.438	-0.375
Kurtosis	-0.477	-0.474	-0.481	-0.421	-0.413	-0.282	-0.200	-0.424
Minimum	7.000	16.500	7.000	10.500	17.000	8.500	12.000	11.083
Maximum	105.000	105.000	105.000	105.000	105.000	105.000	105.000	105.000
Range	98.000	88.500	98.000	94.500	88.000	96.500	93.000	93.916
Median	75.500	74.500	73.000	75.000	75.000	75.500	76.000	NA
Mode	70.500	71.000	72.500	65.000	83.000	81.000	71.500	NA
N Examinees	18944	17825	18377	17346	15920	14803	15065	

\* Average of new forms

Table C-12. Male Sample Summary Score Statistics for General Science

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	16.373	16.320	16.949	16.998	16.786	16.638	16.210	16.677
Variance	26.315	25.822	22.751	22.249	26.403	27.426	19.950	25.161
Std. Dev.	5.130	5.082	4.770	4.717	5.138	5.237	4.467	5.012
Skew	-0.308	-0.297	-0.283	-0.279	-0.387	-0.367	-0.143	-0.320
Kurtosis	-0.664	-0.643	-0.630	-0.664	-0.632	-0.646	-0.529	-0.647
Minimum	1.000	0.000	1.000	1.000	1.000	0.000	1.000	0.667
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	24.000	25.000	24.000	24.000	24.000	25.000	24.000	24.333
Median	17.000	17.000	17.000	17.000	17.000	17.000	16.000	NA
Mode(s)	16.000	18.000	19.000	18.000	21.000	20.000	16.000	NA
						21.000		
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-13. Male Sample Summary Score Statistics for Arithmetic Reasoning

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	19.016	18.896	19.150	19.209	19.410	19.333	18.063	19.169
Variance	47.315	45.708	43.290	47.016	40.248	40.877	42.450	44.076
Std. Dev.	6.879	6.761	6.580	6.857	6.344	6.394	6.515	6.636
Skew	-0.158	-0.152	-0.102	-0.221	-0.096	-0.219	0.065	-0.158
Kurtosis	-1.020	-0.972	-1.042	-0.269	-0.953	-0.794	-0.981	-0.958
Minimum	1.000	1.000	2.000	1.000	2.000	1.000	2.000	1.333
Maximum	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Range	29.000	29.000	28.000	29.000	28.000	29.000	28.000	28.667
Median	19.000	19.000	19.000	20.000	19.000	20.000	18.000	NA
Mode	29.000	20.000	20.000	29.000	16.000	20.000	16.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-14. Male Sample Summary Score Statistics for Word Knowledge

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	25.256	25.242	25.228	25.337	25.205	25.732	26.651	25.333
Variance	51.761	44.928	49.989	48.924	48.212	47.383	36.441	48.533
Std. Dev.	7.195	6.703	7.070	6.995	6.944	6.884	6.037	6.965
Skew	-0.538	-0.523	-0.673	-0.542	-0.491	-0.612	-0.808	-0.563
Kurtosis	-0.587	-0.418	-0.312	-0.554	-0.594	-0.343	0.289	-0.468
Minimum	2.000	1.000	1.000	2.000	2.000	2.000	4.000	1.667
Maximum	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000
Range	33.000	34.000	34.000	33.000	33.000	33.000	31.000	33.333
Median	26.000	26.000	27.000	26.000	26.000	27.000	28.000	NA
Mode	35.000	34.000	31.000	35.000	35.000	35.000	29.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-15. Male Sample Summary Score Statistics for Paragraph Comprehension

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	11.170	10.754	10.302	11.651	11.218	10.991	11.204	11.014
Variance	9.664	9.980	10.098	8.823	9.926	10.004	7.703	9.749
Std. Dev.	3.109	3.159	3.178	2.970	3.151	3.163	2.775	3.122
Skew	-0.644	-0.552	-0.400	-0.946	-0.787	-0.695	-0.881	-0.671
Kurtosis	-0.330	-0.460	-0.603	0.315	-0.074	-0.255	0.340	-0.235
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000
Range	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000
Median	12.000	11.000	11.000	12.000	12.000	12.000	12.000	NA
Mode	15.000	14.000	14.000	14.000	15.000	14.000	13.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-16. Male Sample Summary Score Statistics for Numerical Operations

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	36.864	37.723	34.247	35.237	36.683	35.784	38.010	36.090
Variance	71.303	77.231	80.450	81.314	78.311	76.224	76.886	77.472
Std. Dev.	8.444	8.788	8.969	9.017	8.849	8.731	8.768	8.800
Skew	-0.405	-0.476	-0.276	-0.349	-0.297	-0.287	-0.564	-0.348
Kurtosis	-0.070	-0.338	-0.360	-0.287	-0.461	-0.255	-0.189	-0.295
Minimum	0.000	1.000	1.000	1.000	1.000	1.000	2.000	0.833
Maximum	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Range	50.000	49.000	49.000	49.000	49.000	49.000	48.000	49.167
Median	37.000	38.000	35.000	36.000	37.000	36.000	39.000	NA
Mode	50.000	50.000	35.000	30.000	50.000	50.000	50.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-17. Male Sample Summary Score Statistics for Coding Speed

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	48.469	48.591	48.876	49.171	48.759	49.498	47.904	48.894
Variance	163.694	153.985	167.924	162.353	161.815	159.815	155.851	161.598
Std. Dev.	12.794	12.409	12.959	12.742	12.721	12.642	12.484	12.711
Skew	-0.100	-0.102	-0.198	-0.125	-0.125	-0.109	-0.142	-0.127
Kurtosis	0.331	0.421	0.446	0.459	0.417	0.461	0.534	0.423
Minimum	1.000	0.000	0.000	1.000	0.000	0.000	0.000	0.333
Maximum	84.000	84.000	84.000	84.000	84.000	84.000	84.000	84.000
Range	83.000	84.000	84.000	83.000	84.000	84.000	84.000	83.667
Median	49.000	49.000	49.000	49.000	49.000	50.000	48.000	NA
Mode(s)	56.000	56.000	49.000	53.000	56.000	49.000	46.000	NA
							47.000	
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\*Average of new forms

Table C-18. Male Sample Summary Score Statistics for Auto and Shop Information

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	16.620	16.510	16.054	16.210	16.721	16.666	16.313	16.464
Variance	28.224	28.255	28.171	27.508	26.162	26.460	25.060	27.463
Std. Dev.	5.313	5.316	5.308	5.245	5.115	5.144	5.006	5.240
Skew	-0.361	-0.357	-0.395	-0.403	-0.230	-0.244	-0.239	-0.332
Kurtosis	-0.735	-0.736	-0.761	-0.765	-0.936	-0.897	-0.853	-0.805
Minimum	1.000	1.000	0.000	0.000	2.000	2.000	2.000	1.000
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	24.000	24.000	25.000	25.000	23.000	23.000	23.000	24.000
Median	17.000	17.000	17.000	17.000	17.000	17.000	17.000	NA
Mode	20.000	20.000	19.000	21.000	21.000	22.000	18.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-19. Male Sample Summary Score Statistics for Mathematics Knowledge

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	13.027	12.877	12.655	12.721	13.105	13.066	13.162	12.909
Variance	35.287	35.976	40.117	40.408	33.972	34.479	31.739	36.707
Std. Dev.	5.940	5.998	6.334	6.357	5.829	5.872	5.634	6.055
Skew	0.381	0.363	0.323	0.296	0.349	0.346	0.386	0.343
Kurtosis	-0.889	-0.904	-1.039	-1.067	-0.915	-0.934	-0.852	-0.958
Minimum	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.167
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	25.000	25.000	25.000	25.000	24.000	25.000	25.000	24.833
Median	12.000	12.000	12.000	12.000	12.000	12.000	12.000	NA
Mode	9.000	8.000	6.000	7.000	9.000	9.000	10.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-20. Male Sample Summary Score Statistics for Mechanical Comprehension

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	15.698	15.769	15.832	15.891	15.955	15.788	15.730	15.822
Variance	22.726	22.581	23.283	23.146	22.072	22.144	24.993	22.659
Std. Dev.	4.767	4.752	4.825	4.811	4.698	4.706	4.999	4.760
Skew	-0.277	-0.299	-0.223	-0.231	-0.303	-0.302	-0.163	-0.273
Kurtosis	-0.669	-0.608	-0.746	-0.740	-0.541	-0.530	-0.874	-0.639
Minimum	1.000	1.000	1.000	1.000	1.000	1.000	2.000	1.000
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	24.000	24.000	24.000	24.000	24.000	24.000	23.000	24.000
Median	16.000	16.000	16.000	16.000	16.000	16.000	16.000	NA
Mode	17.000	17.000	19.000	18.000	18.000	18.000	19.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-21. Male Sample Summary Score Statistics for Electronics Information

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	12.040	12.278	12.968	13.097	12.622	12.460	12.397	12.578
Variance	16.060	15.891	15.805	15.207	15.409	15.984	14.394	15.726
Std. Dev.	4.008	3.986	3.976	3.900	3.925	3.998	3.794	3.965
Skew	0.006	-0.049	-0.212	-0.228	-0.240	-0.221	-0.238	-0.157
Kurtosis	-0.796	-0.811	-0.684	-0.655	-0.589	-0.652	-0.592	-0.698
Minimum	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.333
Maximum	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Range	20.000	20.000	19.000	20.000	20.000	19.000	20.000	19.667
Median	12.000	12.000	13.000	13.000	13.000	13.000	13.000	NA
Mode	11.000	11.000	14.000	15.000	13.000	14.000	13.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-22. Male Sample Summary Score Statistics for AFQT Composites

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	73.875	73.754	71.804	73.815	74.174	73.948	74.923	73.562
Variance	315.609	291.478	304.332	307.003	292.863	294.692	254.252	300.996
Std. Dev.	17.765	17.073	17.445	17.521	17.113	17.167	15.945	17.347
Skew	-0.373	-0.334	-0.334	-0.425	-0.362	-0.431	-0.441	-0.377
Kurtosis	-0.514	-0.494	-0.500	-0.425	-0.452	-0.305	-0.220	-0.448
Minimum	10.500	16.500	7.000	10.500	17.000	8.500	12.000	11.667
Maximum	105.000	105.000	105.000	105.000	105.000	105.000	105.000	105.000
Range	94.500	88.500	98.000	94.500	88.000	96.500	93.000	93.333
Median	75.000	74.500	72.500	75.000	75.000	75.500	76.000	NA
Mode	70.500	71.000	72.500	93.000	83.000	81.000	73.000	NA
N Examinees	15919	15036	15520	14626	13425	12484	12502	

\* Average of new forms

Table C-23. Female Sample Summary Score Statistics for General Science

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	15.143	15.157	15.312	15.366	14.944	14.836	14.580	15.126
Variance	21.185	22.039	19.018	18.044	23.435	24.093	15.862	21.302
Std. Dev.	4.603	4.695	4.361	4.248	4.841	4.908	3.983	4.609
Skew	-0.089	-0.079	0.168	0.158	-0.035	-0.026	0.052	0.016
Kurtosis	-0.492	-0.589	-0.589	-0.547	-0.742	-0.671	-0.338	-0.605
Minimum	1.000	2.000	3.000	1.000	2.000	0.000	2.000	1.500
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	24.000	23.000	22.000	24.000	23.000	25.000	23.000	23.500
Median	15.000	15.000	15.000	15.000	15.000	15.000	15.000	NA
Mode	14.000	14.000	14.000	13.000	15.000	16.000	15.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-24. Female Sample Summary Score Statistics for Arithmetic Reasoning

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	17.789	17.467	18.312	17.980	18.654	18.185	16.595	18.065
Variance	41.538	41.052	38.195	44.746	33.268	36.288	35.889	39.181
Std. Dev.	6.445	6.407	6.180	6.689	5.768	6.024	5.991	6.252
Skew	0.062	0.098	0.078	0.005	0.043	-0.088	0.236	0.033
Kurtosis	-0.909	-0.826	-0.967	-0.967	-0.741	-0.671	-0.677	-0.847
Minimum	1.000	2.000	2.000	3.000	3.000	1.000	3.000	2.000
Maximum	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Range	29.000	28.000	28.000	27.000	27.000	29.000	27.000	28.000
Median	17.000	17.000	18.000	18.000	18.000	18.000	16.000	NA
Mode	16.000	16.000	14.000	17.000	18.000	18.000	14.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms



Table C-25. Female Sample Summary Score Statistics for Word Knowledge

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	25.903	25.352	25.807	25.908	25.017	25.925	26.469	25.652
Variance	44.719	42.866	45.208	43.223	42.305	43.456	36.371	43.630
Std. Dev.	6.687	6.547	6.724	6.574	6.504	6.592	6.031	6.605
Skew	-0.599	-0.341	-0.602	-0.508	-0.293	-0.493	-0.618	-0.473
Kurtosis	-0.390	-0.737	-0.455	-0.565	-0.663	-0.528	-0.263	-0.556
Minimum	1.000	1.000	3.000	2.000	3.000	2.000	5.000	2.000
Maximum	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000
Range	34.000	34.000	32.000	33.000	32.000	33.000	30.000	33.000
Median	27.000	26.000	27.000	27.000	25.000	27.000	27.000	NA
Mode	35.000	35.000	34.000	35.000	35.000	35.000	34.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-26. Female Sample Summary Score Statistics for Paragraph Comprehension

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	11.584	11.416	10.740	11.611	11.634	11.163	11.698	11.358
Std. Dev.	2.701	2.855	2.900	2.703	2.921	2.971	2.488	2.842
Variance	7.294	8.151	8.408	7.304	8.533	8.829	6.191	8.087
Skew	-0.670	-0.700	-0.398	-0.809	-0.913	-0.650	-1.005	-0.690
Kurtosis	-0.102	-0.154	-0.491	0.230	0.345	-0.226	0.936	-0.066
Minimum	2.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000
Maximum	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000
Range	13.000	15.000	14.000	14.000	14.000	14.000	14.000	14.000
Median	12.000	12.000	11.000	12.000	12.000	12.000	12.000	NA
Mode	15.000	14.000	11.000	14.000	15.000	15.000	14.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-27. Female Sample Summary Score Statistics for Numerical Operations

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	39.942	41.608	37.087	38.402	39.807	38.921	41.367	39.295
Variance	60.908	61.045	74.156	70.554	68.256	72.990	65.123	67.985
Std. Dev.	7.804	7.813	8.611	8.400	8.262	8.543	8.070	8.239
Skew	-0.606	-1.070	-0.544	-0.670	-0.571	-0.601	-1.020	-0.677
Kurtosis	0.012	1.106	-0.147	0.124	-0.368	-0.086	0.707	0.107
Minimum	2.000	0.000	6.000	2.000	3.000	4.000	1.000	2.833
Maximum	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Range	48.000	50.000	44.000	48.000	47.000	46.000	49.000	47.167
Median	40.000	43.000	38.000	39.000	41.000	40.000	43.000	NA
Mode	50.000	50.000	49.000	49.000	50.000	50.000	50.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-28. Female Sample Summary Score Statistics for Coding Speed

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	56.106	56.359	56.409	56.882	56.054	56.967	54.976	56.463
Variance	161.677	171.317	166.395	175.102	167.318	170.206	159.468	168.669
Std. Dev.	12.715	13.089	12.899	13.233	12.935	13.046	12.628	12.986
Skew	-0.283	-0.329	-0.362	-0.396	-0.302	-0.292	-0.304	-0.327
Kurtosis	0.546	0.461	0.341	0.454	0.386	0.327	0.549	0.419
Minimum	1.000	4.000	8.000	4.000	3.000	5.000	4.000	4.167
Maximum	84.000	84.000	84.000	84.000	84.000	84.000	84.000	84.000
Range	83.000	80.000	76.000	80.000	81.000	79.000	80.000	79.833
Median	56.000	56.000	57.000	57.000	56.000	57.000	55.000	NA
Mode	56.000	56.000	56.000	57.000	56.000	56.000	56.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-29. Female Sample Summary Score Statistics for Auto and Shop Information

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	10.656	10.472	9.897	10.119	10.556	10.598	11.223	10.383
Variance	17.719	16.978	17.410	17.726	11.568	12.413	14.509	15.636
Std. Dev.	4.209	4.120	4.173	4.210	3.401	3.523	3.809	3.909
Skew	0.311	0.328	0.479	0.467	0.575	0.636	0.384	0.466
Kurtosis	-0.351	-0.367	-0.204	-0.273	0.639	0.509	-0.019	-0.008
Minimum	0.000	1.000	0.000	0.000	2.000	2.000	1.000	0.833
Maximum	24.000	24.000	24.000	24.000	25.000	25.000	25.000	24.333
Range	24.000	23.000	24.000	24.000	23.000	23.000	24.000	23.500
Median	10.000	10.000	9.000	10.000	10.000	10.000	11.000	NA
Mode	9.000	8.000	8.000	8.000	9.000	9.000	10.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-30. Female Sample Summary Score Statistics for Mathematics Knowledge

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	12.388	12.580	12.216	11.947	12.710	12.599	13.224	12.407
Variance	29.725	29.979	33.807	33.394	29.022	29.665	27.492	30.932
Std. Dev.	5.452	5.475	5.814	5.779	5.387	5.447	5.243	5.559
Skew	0.429	0.429	0.279	0.361	0.375	0.471	0.306	0.391
Kurtosis	-0.633	-0.644	-0.886	-0.791	-0.752	-0.667	-0.760	-0.729
Minimum	1.000	1.000	0.000	1.000	1.000	1.000	1.000	0.833
Maximum	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Range	24.000	24.000	25.000	24.000	24.000	24.000	24.000	24.167
Median	11.000	12.000	12.000	11.000	12.000	12.000	13.000	NA
Mode(s)	9.000	10.000	7.000 9.000	8.000	10.000	10.000	10.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-31. Female Sample Summary Score Statistics for Mechanical Comprehension

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	12.403	12.593	12.470	12.438	12.513	12.494	11.902	12.485
Variance	18.090	19.450	17.930	17.492	15.898	16.300	17.734	17.527
Std. Dev.	4.253	4.410	4.234	4.182	3.987	4.037	4.211	4.184
Skew	0.170	0.138	0.280	0.252	0.094	0.182	0.341	0.186
Kurtosis	-0.506	-0.603	-0.400	-0.515	-0.379	-0.376	-0.394	-0.463
Minimum	1.000	1.000	1.000	3.000	2.000	2.000	1.000	1.667
Maximum	24.000	24.000	25.000	24.000	25.000	25.000	25.000	24.500
Range	23.000	23.000	24.000	21.000	23.000	23.000	24.000	22.833
Median	12.000	12.000	12.000	12.000	12.000	12.000	12.000	NA
Mode	11.000	12.000	10.000	10.000	13.000	13.000	12.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-32. Female Sample Summary Score Statistics for Electronics Information

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	9.270	9.488	9.780	9.882	9.741	9.587	9.444	9.625
Variance	10.107	10.515	11.122	10.613	11.743	12.556	10.992	11.109
Std. Dev.	3.179	3.243	3.335	3.258	3.427	3.543	3.315	3.331
Skew	0.454	0.493	0.246	0.331	0.182	0.149	0.251	0.309
Kurtosis	-0.034	0.130	-0.321	-0.226	-0.489	-0.392	-0.256	-0.222
Minimum	0.000	1.000	1.000	1.000	0.000	0.000	1.000	0.500
Maximum	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Range	20.000	19.000	19.000	19.000	20.000	20.000	19.000	19.500
Median	9.000	9.000	10.000	10.000	10.000	9.000	9.000	NA
Mode	7.000	9.000	10.000	9.000	8.000	9.000	9.000	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

Table C-33. Female Sample Summary Score Statistics for AFQT Composites

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	75.247	75.039	73.402	74.700	75.209	74.734	75.446	74.722
Variance	254.117	243.650	257.331	259.840	234.236	258.564	211.901	251.290
Std. Dev.	15.941	15.609	16.042	16.120	15.305	16.080	14.557	15.850
Skew	-0.354	-0.258	-0.308	-0.300	-0.347	-0.419	-0.403	-0.331
Kurtosis	-0.349	-0.459	-0.452	-0.505	-0.260	-0.179	-0.165	-0.367
Minimum	7.000	20.000	18.000	17.500	21.000	12.000	24.000	15.917
Maximum	105.000	105.000	105.000	105.000	105.000	105.000	104.000	105.000
Range	98.000	85.000	87.000	87.500	84.000	93.000	80.000	89.083
Median	76.500	75.500	74.500	75.000	76.000	75.500	76.000	NA
Mode	78.000	83.000	74.000	65.000	74.000	88.500	71.500	NA
N Examinees	3025	2788	2856	2719	2493	2318	2561	

\* Average of new forms

APPENDIX D: SUMMARY STATISTICS (Composites)

**Table D-1. Total Sample Summary Statistics for Composite C1: VE + AR**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	100.015	99.412	100.255	100.662	100.527	100.608	100.279	100.190
Variance	243.872	228.917	221.899	231.991	217.053	221.889	221.483	229.714
Std. Dev.	15.616	15.130	14.896	15.231	14.733	14.896	14.882	15.154
Skew	-0.274	-0.226	-0.246	-0.323	-0.267	-0.345	-0.269	-0.283
Kurtosis	-0.775	-0.756	-0.754	-0.708	-0.683	-0.568	-0.587	-0.712
Minimum	51.000	55.000	53.000	54.000	57.000	50.000	49.000	52.600
Maximum	126.000	126.000	126.000	126.000	126.000	126.000	128.000	126.000
Range	75.000	71.000	73.000	72.000	69.000	76.000	79.000	73.400
Median	101.000	100.000	101.000	102.000	101.000	102.000	101.000	NA
Mode	120.000	100.000	103.000	103.000	100.000	107.000	101.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-2. Total Sample Summary Statistics for Composite C2: MK + EI + GS**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	201.036	201.202	202.263	203.126	203.236	202.469	201.990	202.019
Variance	867.191	867.307	879.401	871.790	846.391	800.645	872.967	873.267
Std. Dev.	29.448	29.450	29.655	29.526	29.093	29.676	29.546	29.551
Skew	0.056	0.051	-0.001	-0.005	-0.048	-0.049	0.038	0.010
Kurtosis	-0.749	-0.777	-0.799	-0.812	-0.754	-0.781	-0.701	-0.784
Minimum	109.000	119.000	120.000	111.000	121.000	121.000	123.000	116.000
Maximum	269.000	269.000	269.000	269.000	269.000	269.000	275.000	269.000
Range	160.000	150.000	149.000	158.000	148.000	148.000	152.000	153.000
Median	200.000	200.000	202.000	203.000	204.000	203.000	202.000	NA
Mode	186.000	200.000	209.000	198.000	207.000	203.000	206.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-3. Total Sample Summary Statistics for Composite C3: AR + MK + EI + GS**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average*
	11a	11b	12a	12b	13a	13b	13c(8a)	
Mean	198.272	198.413	199.785	201.320	200.944	200.062	199.685	199.570
Variance	922.443	912.384	894.149	906.832	881.448	912.699	891.174	909.701
Std. Dev.	30.372	30.206	29.902	30.114	29.689	30.211	29.853	30.161
Skew	0.118	0.133	0.078	0.054	0.008	-0.015	0.147	0.074
Kurtosis	-0.819	-0.823	-0.851	-0.869	-0.793	-0.776	-0.730	-0.828
Minimum	105.000	114.000	120.000	113.000	119.000	121.000	123.000	114.600
Maximum	265.000	265.000	264.000	265.000	265.000	265.000	272.000	264.800
Range	160.000	151.000	144.000	152.000	146.000	144.000	149.000	150.200
Median	196.000	196.000	198.000	200.000	200.000	199.000	198.000	NA
Mode(s)	182.000	196.000	197.000	191.000	199.000	198.000	196.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-4. Total Sample Summary Statistics for Composite C4: AR + MK + VE**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	149.456	148.707	149.641	149.614	150.138	150.146	149.648	149.513
Variance	515.473	494.263	494.414	529.588	469.378	475.738	485.274	501.895
Std. Dev.	22.704	22.232	22.235	23.013	21.665	21.811	22.029	22.399
Skew	0.005	0.043	0.030	-0.020	-0.006	-0.041	0.008	0.003
Kurtosis	-0.872	-0.846	-0.936	-0.935	-0.817	-0.775	-0.756	-0.873
Minimum	83.000	91.000	90.000	87.000	90.000	90.000	87.000	88.200
Maximum	193.000	193.000	193.000	193.000	193.000	193.000	196.000	193.000
Range	110.000	102.000	103.000	106.000	103.000	103.000	109.000	104.800
Median	149.000	147.000	149.000	149.000	149.000	150.000	149.000	NA
Mode(s)	138.000	141.000	141.000	137.000	135.000	141.000	135.000 141.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-5. Total Sample Summary Statistics for Composite C5: NO + AS + MC + EI**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	204.812	206.274	205.678	205.289	206.575	205.044	205.717	205.419
Variance	766.018	752.084	770.387	787.551	733.427	750.729	761.879	765.354
Std. Dev.	27.677	27.424	27.756	28.063	27.082	27.399	27.602	27.664
Skew	-0.130	-0.146	-0.144	-0.175	-0.162	-0.177	-0.118	-0.154
Kurtosis	-0.605	-0.602	-0.662	-0.620	-0.536	-0.544	-0.621	-0.607
Minimum	109.000	116.000	121.000	101.000	118.000	114.000	115.000	112.200
Maximum	269.000	269.000	268.000	269.000	269.000	269.000	271.000	268.800
Range	160.000	153.000	147.000	168.000	151.000	155.000	156.000	156.600
Median	205.000	207.000	207.000	206.000	208.000	206.000	206.000	NA
Mode(s)	207.000	207.000	200.000 221.000	215.000	201.000 210.000 222.000	192.000	207.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-6. Total Sample Summary Statistics for Composite C6: AR + AS + MC + VE**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	203.541	202.963	204.124	203.845	204.691	204.417	204.001	203.778
Variance	917.090	895.713	868.820	907.116	824.849	843.707	861.528	886.489
Std. Dev.	30.283	29.928	29.476	30.118	28.720	29.047	29.352	29.770
Skew	-0.235	-0.227	-0.185	-0.231	-0.170	-0.223	-0.132	-0.220
Kurtosis	-0.728	-0.730	-0.805	-0.786	-0.692	-0.663	-0.758	-0.742
Minimum	114.000	117.000	121.000	107.000	119.000	112.000	115.000	114.200
Maximum	264.000	264.000	265.000	263.000	264.000	264.000	267.000	264.000
Range	150.000	147.000	144.000	156.000	145.000	152.000	152.000	149.800
Median	205.000	205.000	206.000	206.000	206.000	206.000	205.000	NA
Mode(s)	222.000	223.000	211.000	220.000 225.000	216.000	220.000	203.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-7. Total Sample Summary Statistics for Composite C7: CS + AR + MC + AS  
Formed From Five-Form Average Linear Equating Tables**

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	203.593	203.490	204.442	203.919	204.987	204.896	204.299	204.068
Variance	752.257	742.464	719.050	754.683	676.146	697.070	721.166	733.105
Std. Dev.	27.427	27.248	26.815	27.472	26.003	26.402	26.855	27.073
Skew	-0.201	-0.196	-0.147	-0.195	-0.130	-0.199	-0.030	-0.188
Kurtosis	-0.568	-0.593	-0.641	-0.610	-0.518	-0.454	-0.647	-0.573
Minimum	114.000	116.000	119.000	107.000	118.000	116.000	120.000	114.400
Maximum	273.000	272.000	270.000	270.000	272.000	272.000	277.000	271.400
Range	159.000	156.000	151.000	163.000	154.000	156.000	157.000	157.000
Median	205.000	205.000	205.000	205.000	205.000	206.000	204.000	NA
Mode(s)	213.000	210.000	215.000	218.000	207.000	202.000	204.000	NA
						208.000		

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-8. Total Sample Summary Statistics for Composite C8: AR + CS + MC + MK  
Formed From Five-Form Average Linear Equating Tables**

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	200.847	200.771	201.663	201.380	202.257	202.160	201.662	201.364
Variance	786.202	773.992	775.187	829.280	726.846	744.990	741.589	781.930
Std. Dev.	28.039	27.821	27.842	28.797	26.960	27.295	27.232	27.959
Skew	0.011	0.032	0.060	0.028	0.017	-0.016	0.131	0.023
Kurtosis	-0.670	-0.677	-0.749	-0.757	-0.591	-0.559	-0.667	-0.682
Minimum	115.000	116.000	120.000	111.000	116.000	113.000	127.000	115.000
Maximum	271.000	271.000	271.000	271.000	271.000	272.000	276.000	271.200
Range	156.000	155.000	151.000	160.000	155.000	159.000	149.000	156.200
Median	200.000	200.000	200.000	200.000	201.000	201.000	200.000	NA
Mode	189.000	190.000	196.000	193.000	196.000	193.000	190.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-9. Total Sample Summary Statistics for Composite C9: NO + AS + MC + VE  
Formed From Five-Form Average Linear Equating Tables**

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	205.609	206.113	205.513	204.194	205.949	205.047	205.546	205.295
Variance	697.886	671.890	689.879	710.479	653.101	667.001	672.111	687.427
Std. Dev.	26.418	25.921	26.266	26.655	25.556	25.826	25.925	26.217
Skew	-0.357	-0.357	-0.299	-0.328	-0.307	-0.347	-0.342	-0.338
Kurtosis	-0.374	-0.358	-0.494	-0.446	-0.331	-0.292	-0.314	-0.393
Minimum	109.000	111.000	117.000	98.000	115.000	109.000	108.000	108.800
Maximum	262.000	262.000	262.000	262.000	262.000	262.000	262.000	262.000
Range	153.000	151.000	145.000	164.000	147.000	153.000	154.000	153.200
Median	208.000	208.000	207.000	206.000	208.000	207.000	207.000	NA
Mode	224.000	212.000	210.000	212.000	211.000	213.000	214.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-10. Total Sample Summary Statistics for Composite C10: VE + MK + MC + GS  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	200.985	200.564	201.636	202.233	202.090	201.734	201.529	201.430
Variance	908.885	883.394	901.995	900.752	881.479	899.185	840.215	898.842
Std. Dev.	30.148	29.722	30.033	30.013	29.690	29.986	28.986	29.980
Skew	-0.090	-0.076	-0.043	-0.053	-0.143	-0.149	-0.065	-0.082
Kurtosis	-0.730	-0.717	-0.792	-0.828	-0.684	-0.693	-0.642	-0.752
Minimum	113.000	115.000	116.000	103.000	117.000	114.000	118.000	112.200
Maximum	264.000	264.000	264.000	264.000	264.000	264.000	268.000	264.000
Range	151.000	149.000	148.000	161.000	147.000	150.000	150.000	151.800
Median	201.000	200.000	201.000	202.000	203.000	202.000	202.000	NA
Mode	190.000	196.000	193.000	189.000	206.000	198.000	200.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-11. Total Sample Summary Statistics for Composite C11: AR + EI + MC + AS  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	202.745	203.125	204.289	204.940	205.317	204.415	204.172	203.903
Variance	1001.371	995.571	965.671	1001.163	920.133	943.132	975.781	981.382
Std. Dev.	31.644	31.553	31.075	31.641	30.334	30.710	31.237	31.325
Skew	-0.058	-0.072	-0.073	-0.121	-0.067	-0.103	0.014	-0.085
Kurtosis	-0.836	-0.848	-0.877	-0.859	-0.778	-0.769	-0.858	-0.838
Minimum	116.000	114.000	119.000	110.000	120.000	117.000	126.000	115.200
Maximum	271.000	271.000	271.000	271.000	271.000	271.000	275.000	271.000
Range	155.000	157.000	152.000	161.000	151.000	154.000	149.000	155.800
Median	203.000	204.000	205.000	206.000	206.000	205.000	204.000	NA
Mode	226.000	215.000	201.000	214.000	195.000	206.000	201.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-12. Total Sample Summary Statistics for Composite C12: VE + MK + CS  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	150.679	150.196	150.842	150.983	150.861	151.501	150.824	150.840
Variance	374.571	358.414	368.725	385.665	360.622	367.311	365.666	370.937
Std. Dev.	19.354	18.932	19.202	19.638	18.990	19.165	19.122	19.258
Skew	-0.054	-0.019	-0.079	-0.076	-0.090	-0.111	-0.163	-0.070
Kurtosis	-0.392	-0.436	-0.515	-0.518	-0.372	-0.332	-0.285	-0.439
Minimum	78.000	88.000	86.000	79.000	85.000	84.000	83.000	83.000
Maximum	200.000	200.000	199.000	200.000	200.000	200.000	202.000	199.800
Range	122.000	112.000	113.000	121.000	115.000	116.000	119.000	116.800
Median	150.000	150.000	151.000	151.000	150.000	151.000	151.000	NA
Mode	148.000	145.000	147.000	150.000	152.000	151.000	142.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included



Table D-13. Total Sample Summary Statistics for Composite C13: VE + AR + MC  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	151.354	150.949	151.959	152.355	152.349	152.144	151.996	151.752
Variance	553.266	532.421	517.866	540.760	503.213	512.511	497.633	531.365
Std. Dev.	23.522	23.074	22.757	23.254	22.432	22.639	22.308	23.049
Skew	-0.235	-0.215	-0.172	-0.232	-0.218	-0.277	-0.148	-0.226
Kurtosis	-0.761	-0.743	-0.789	-0.777	-0.659	-0.605	-0.728	-0.735
Minimum	83.000	86.000	86.000	78.000	82.000	75.000	82.000	81.600
Maximum	196.000	196.000	196.000	196.000	196.000	196.000	198.000	196.000
Range	113.000	110.000	110.000	118.000	114.000	121.000	116.000	114.400
Median	153.000	152.000	153.000	154.000	153.000	154.000	153.000	NA
Mode	153.000	160.000	153.000	164.000	158.000	166.000	153.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-14. Total Sample Summary Statistics for Composite C14: MC + GS + ZAS  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	205.324	205.110	206.011	205.283	206.686	206.001	205.593	205.546
Variance	1071.276	1073.614	1067.787	1054.398	1011.170	1029.578	1078.906	1059.331
Std. Dev.	32.730	32.766	32.677	32.471	31.799	32.087	32.847	32.546
Skew	-0.210	-0.213	-0.177	-0.192	-0.132	-0.144	-0.042	-0.187
Kurtosis	-0.771	-0.782	-0.905	-0.891	-0.838	-0.853	-0.867	-0.840
Minimum	114.000	108.000	112.000	105.000	121.000	117.000	119.000	111.200
Maximum	271.000	271.000	273.000	271.000	271.000	271.000	276.000	271.400
Range	157.000	163.000	161.000	166.000	150.000	154.000	157.000	160.200
Median	207.000	207.000	208.000	207.000	208.000	207.000	206.000	NA
Mode	225.000	221.000	239.000	207.000	193.000	229.000	233.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-15. Total Sample Summary Statistics for Composite C15: NO + CS + VE  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	152.728	153.275	152.532	152.064	152.557	152.459	152.700	152.612
Variance	350.958	334.240	342.484	355.982	347.063	354.111	348.898	347.555
Std. Dev.	18.734	18.282	18.506	18.867	18.630	18.818	18.679	18.641
Skew	-0.434	-0.428	-0.426	-0.435	-0.405	-0.437	-0.579	-0.432
Kurtosis	0.223	0.085	0.106	0.203	0.110	0.288	0.419	0.181
Minimum	66.000	72.000	73.000	68.000	72.000	71.000	65.000	70.000
Maximum	195.000	195.000	194.000	195.000	195.000	195.000	196.000	194.800
Range	129.000	123.000	121.000	127.000	123.000	124.000	131.000	124.800
Median	154.000	155.000	154.000	153.000	153.000	153.000	154.000	NA
Mode(s)	157.000	155.000	153.000	152.000	154.000	159.000	154.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-16. Total Sample Summary Statistics for Composite C16: AR + GS + 2MK  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	197.916	197.359	198.435	198.198	199.453	198.861	198.304	198.154
Variance	989.842	982.615	975.916	1026.573	922.280	943.046	952.335	983.598
Std. Dev.	31.462	31.347	31.240	32.040	30.369	30.709	30.860	31.360
Skew	0.206	0.222	0.198	0.175	0.159	0.148	0.284	0.190
Kurtosis	-0.863	-0.851	-0.961	-0.980	-0.852	-0.840	-0.773	-0.899
Minimum	114.000	124.000	127.000	120.000	121.000	122.000	118.000	121.400
Maximum	263.000	263.000	263.000	263.000	263.000	263.000	270.000	263.000
Range	149.000	139.000	136.000	143.000	142.000	141.000	152.000	141.600
Median	195.000	194.000	195.000	195.000	197.000	196.000	195.000	NA
Mode(s)	182.000	178.000	169.000	176.000	190.000	187.000	191.000	NA
				180.000			193.000	

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-17. Total Sample Summary Statistics for Composite C17: VE + MC + AS  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	154.119	153.739	154.437	154.161	154.641	154.551	154.300	154.201
Variance	538.470	528.771	525.686	537.923	499.263	506.806	517.647	527.531
Std. Dev.	23.205	22.995	22.928	23.193	22.344	22.512	22.752	22.967
Skew	-0.279	-0.286	-0.235	-0.260	-0.217	-0.241	-0.219	-0.260
Kurtosis	-0.682	-0.678	-0.796	-0.781	-0.678	-0.680	-0.717	-0.723
Minimum	86.000	85.000	86.000	76.000	90.000	85.000	87.000	83.600
Maximum	200.000	200.000	201.000	200.000	200.000	200.000	201.000	200.200
Range	114.000	115.000	115.000	124.000	110.000	115.000	114.000	116.600
Median	156.000	156.000	156.000	156.000	156.000	156.000	156.000	NA
Mode	162.000	165.000	168.000	164.000	161.000	157.000	166.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-18. Total Sample Summary Statistics for Composite C18: MK + AS  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	101.627	101.309	101.550	100.442	101.954	101.811	101.374	101.348
Variance	212.646	213.926	217.759	233.484	197.381	203.201	213.801	216.203
Std. Dev.	14.582	14.626	14.757	15.280	14.049	14.255	14.622	14.700
Skew	0.040	0.050	0.048	0.043	0.100	0.088	0.088	0.054
Kurtosis	-0.686	-0.687	-0.776	-0.787	-0.708	-0.756	-0.694	-0.738
Minimum	62.000	60.000	62.000	62.000	65.000	64.000	63.000	62.000
Maximum	135.000	135.000	136.000	135.000	135.000	135.000	137.000	135.200
Range	73.000	75.000	74.000	73.000	70.000	71.000	74.000	73.200
Median	102.000	101.000	101.000	100.000	102.000	102.000	101.000	NA
Mode	105.000	95.000	106.000	101.000	101.000	108.000	106.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-19. Total Sample Summary Statistics for Composite C19: VE + AR + NO + CS**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	202.150	202.499	202.219	201.748	202.607	202.325	202.401	202.188
Variance	655.685	620.804	633.129	665.280	619.860	637.056	628.609	642.391
Std. Dev.	25.606	24.916	25.162	25.793	24.897	25.240	25.072	25.343
Skew	-0.342	-0.319	-0.315	-0.342	-0.315	-0.367	-0.373	-0.337
Kurtosis	-0.133	-0.217	-0.240	-0.179	-0.152	-0.011	-0.054	-0.156
Minimum	93.000	107.000	104.000	99.000	106.000	101.000	96.000	100.800
Maximum	259.000	259.000	258.000	258.000	259.000	259.000	262.000	258.600
Range	166.000	152.000	154.000	159.000	153.000	158.000	166.000	157.800
Median	203.000	204.000	203.000	203.000	203.000	203.000	204.000	NA
Mode(s)	198.000	208.000	201.000	196.000	194.000	202.000	199.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-20. Total Sample Summary Statistics for Composite C20: VE + MK + GS**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	149.646	149.027	149.933	150.541	150.268	150.198	149.813	149.869
Variance	508.111	488.342	496.765	490.037	495.395	504.873	474.519	497.626
Std. Dev.	22.541	22.098	22.288	22.137	22.257	22.469	21.783	22.307
Skew	-0.069	-0.044	-0.055	-0.065	-0.147	-0.146	-0.109	-0.076
Kurtosis	-0.741	-0.717	-0.786	-0.824	-0.722	-0.720	-0.540	-0.758
Minimum	79.000	83.000	85.000	79.000	85.000	80.000	82.000	81.200
Maximum	194.000	194.000	194.000	194.000	194.000	194.000	198.000	194.000
Range	115.000	111.000	109.000	115.000	109.000	114.000	116.000	112.800
Median	149.000	148.000	150.000	150.000	151.000	151.000	150.000	NA
Mode	145.000	147.000	141.000	149.000	160.000	146.000	152.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-21. Total Sample Summary Statistics for Composite C21: AR + MC + AS**  
Formed From Five-Form Average Linear Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	152.948	152.776	153.554	152.866	154.214	153.675	153.423	153.164
Variance	585.074	581.865	556.145	587.036	521.966	531.533	561.188	568.331
Std. Dev.	24.188	24.122	23.583	24.229	22.847	23.055	23.689	23.835
Skew	-0.164	-0.172	-0.105	-0.162	-0.070	-0.126	0.022	-0.146
Kurtosis	-0.809	-0.798	-0.896	-0.862	-0.797	-0.765	-0.885	-0.826
Minimum	84.000	86.000	90.000	84.000	90.000	89.000	94.000	86.600
Maximum	202.000	202.000	203.000	202.000	202.000	202.000	205.000	202.200
Range	118.000	116.000	113.000	118.000	112.000	113.000	111.000	115.600
Median	154.000	154.000	154.000	154.000	155.000	155.000	153.000	NA
Mode(s)	163.000	157.000	165.000	159.000	163.000	160.000	148.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-22. Male Sample Summary Statistics for Composite C1: VE + AR**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	100.136	99.608	100.301	100.850	100.655	100.799	100.569	100.339
Variance	250.072	232.630	226.772	235.955	223.503	225.878	226.545	234.261
Std. Dev.	15.814	15.252	15.059	15.361	14.950	15.029	15.051	15.303
Skew	-0.292	-0.255	-0.261	-0.352	-0.283	-0.363	-0.294	-0.305
Kurtosis	-0.788	-0.747	-0.756	-0.694	-0.708	-0.568	-0.589	-0.711
Minimum	54.000	55.000	53.000	54.000	57.000	50.000	49.000	53.200
Maximum	126.000	126.000	126.000	126.000	126.000	126.000	128.000	126.000
Range	72.000	71.000	73.000	72.000	69.000	76.000	79.000	72.800
Median	101.000	100.000	101.000	102.000	101.000	102.000	101.000	NA
Mode(s)	120.000	100.000	99.000	115.000	91.000 99.000 100.000	107.000	105.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-23. Male Sample Summary Statistics for Composite C2: MK + EI + AS + GS**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	204.164	204.198	205.550	206.529	206.503	205.719	205.269	205.232
Variance	859.840	859.020	858.209	847.573	829.378	862.926	864.610	857.514
Std. Dev.	29.323	29.309	29.295	29.113	28.799	29.376	29.404	29.283
Skew	-0.045	-0.048	-0.101	-0.109	-0.152	-0.157	-0.060	-0.092
Kurtosis	-0.730	-0.754	-0.751	-0.757	-0.696	-0.718	-0.679	-0.742
Minimum	121.000	119.000	120.000	111.000	121.000	123.000	124.000	118.800
Maximum	269.000	269.000	269.000	269.000	269.000	269.000	275.000	269.000
Range	148.000	150.000	149.000	158.000	148.000	146.000	151.000	150.200
Median	204.000	204.000	206.000	207.000	207.000	207.000	206.000	NA
Mode(s)	201.000 214.000	211.000	209.000	216.000	207.000	221.000	212.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-24. Male Sample Summary Statistics for Composite C3: AR + MK + EI + GS**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	200.041	200.098	201.651	203.353	202.731	201.936	201.745	201.416
Variance	946.151	931.020	905.208	915.946	894.532	920.047	904.851	923.674
Std. Dev.	30.760	30.513	30.087	30.265	29.909	30.332	30.081	30.391
Skew	0.054	0.067	0.020	-0.012	-0.051	-0.076	0.089	0.011
Kurtosis	-0.854	-0.855	-0.864	-0.877	-0.795	-0.775	-0.761	-0.845
Minimum	118.000	114.000	120.000	113.000	119.000	121.000	123.000	117.200
Maximum	265.000	265.000	264.000	265.000	265.000	265.000	272.000	264.800
Range	147.000	151.000	144.000	152.000	146.000	144.000	149.000	147.600
Median	199.000	199.000	201.000	203.000	202.000	202.000	200.000	NA
Mode	185.000	196.000	193.000	195.000	199.000	198.000	196.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-25. Male Sample Summary Statistics for Composite C4: AR + MK + VE**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	149.728	148.971	149.780	149.978	150.358	150.445	149.921	149.780
Variance	530.869	506.145	507.227	541.773	483.956	486.225	498.068	514.448
Std. Dev.	23.041	22.498	22.522	23.276	21.999	22.051	22.317	22.678
Skew	-0.012	0.020	0.021	-0.042	-0.022	-0.060	-0.002	-0.015
Kurtosis	-0.905	-0.871	-0.957	-0.954	-0.844	-0.802	-0.784	-0.898
Minimum	87.000	91.000	92.000	87.000	90.000	90.000	87.000	89.400
Maximum	193.000	193.000	193.000	193.000	193.000	193.000	196.000	193.000
Range	106.000	102.000	101.000	106.000	103.000	103.000	109.000	103.600
Median	149.000	148.000	149.000	150.000	150.000	150.000	149.000	NA
Mode	138.000	141.000	141.000	137.000	135.000	141.000	135.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-26. Male Sample Summary Statistics for Composite C5: NO + AS + MC + EI**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	208.050	209.325	209.039	208.690	209.878	208.276	209.153	208.676
Variance	753.530	740.723	747.739	766.167	717.702	734.817	750.001	748.595
Std. Dev.	27.450	27.216	27.345	27.680	26.790	27.108	27.386	27.360
Skew	-0.261	-0.271	-0.271	-0.313	-0.296	-0.310	-0.254	-0.285
Kurtosis	-0.500	-0.502	-0.547	-0.472	-0.409	-0.408	-0.527	-0.486
Minimum	113.000	116.000	121.000	101.000	119.000	114.000	115.000	113.000
Maximum	269.000	269.000	268.000	269.000	269.000	269.000	271.000	268.800
Range	156.000	153.000	147.000	168.000	150.000	155.000	156.000	155.800
Median	210.000	211.000	211.000	211.000	212.000	210.000	211.000	NA
Mode(s)	214.000	207.000	221.000	215.000	216.000	222.000 225.000	207.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-27. Male Sample Summary Statistics for Composite C6: AR + AS + MC + VE**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	206.332	205.761	206.789	206.739	207.533	207.254	207.072	206.575
Variance	910.083	880.205	864.417	894.989	827.327	841.857	857.917	878.310
Std. Dev.	30.168	29.668	29.401	29.916	28.763	29.015	29.290	29.634
Skew	-0.335	-0.324	-0.291	-0.338	-0.286	-0.343	-0.241	-0.326
Kurtosis	-0.642	-0.628	-0.721	-0.686	-0.623	-0.561	-0.700	-0.648
Minimum	114.000	117.000	121.000	107.000	119.000	112.000	115.000	114.200
Maximum	264.000	264.000	265.000	263.000	264.000	264.000	267.000	264.000
Range	150.000	147.000	144.000	156.000	145.000	152.000	152.000	149.800
Median	209.000	208.000	209.000	210.000	210.000	210.000	209.000	NA
Mode	232.000	223.000	221.000	220.000	216.000	220.000	223.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-28. Male Sample Summary Statistics for Composite C7: CS + AR + MC + AS**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	205.806	205.676	206.561	206.171	207.188	207.095	206.700	206.262
Variance	753.648	738.689	723.302	752.785	687.370	706.154	730.143	734.916
Std. Dev.	27.453	27.179	26.894	27.437	26.218	26.574	27.021	27.107
Skew	-0.293	-0.283	-0.243	-0.286	-0.232	-0.304	-0.127	-0.282
Kurtosis	-0.497	-0.517	-0.579	-0.532	-0.469	-0.380	-0.628	-0.501
Minimum	114.000	116.000	119.000	107.000	118.000	116.000	120.000	114.400
Maximum	273.000	272.000	270.000	270.000	272.000	272.000	277.000	271.400
Range	159.000	156.000	151.000	163.000	154.000	156.000	157.000	157.000
Median	208.000	208.000	208.000	208.000	208.000	209.000	207.000	NA
Mode	213.000	210.000	222.000	223.000	215.000	212.000	204.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-29. Male Sample Summary Statistics for Composite C8: AR + CS + MC + MK**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	201.591	201.417	202.282	202.183	202.911	202.852	202.488	202.065
Variance	808.622	790.501	799.337	850.254	752.133	767.190	765.708	803.181
Std. Dev.	28.436	28.116	28.273	29.159	27.425	27.698	27.671	28.336
Skew	-0.025	-0.001	0.031	-0.005	-0.014	-0.054	0.098	-0.011
Kurtosis	-0.701	-0.702	-0.783	-0.786	-0.617	-0.586	-0.705	-0.712
Minimum	115.000	116.000	120.000	111.000	116.000	113.000	127.000	115.000
Maximum	271.000	271.000	271.000	271.000	271.000	272.000	276.000	271.200
Range	156.000	155.000	151.000	160.000	155.000	159.000	149.000	156.200
Median	201.000	201.000	201.000	201.000	202.000	202.000	201.000	NA
Mode	189.000	203.000	196.000	193.000	205.000	193.000	190.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-30. Male Sample Summary Statistics for Composite C9: NO + AS + MC + VE**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	207.694	208.064	207.623	206.377	208.192	207.200	207.750	207.392
Variance	706.487	677.572	695.574	716.785	663.134	674.857	684.320	694.255
Std. Dev.	26.580	26.030	26.374	26.773	25.751	26.197	26.160	26.347
Skew	-0.454	-0.449	-0.401	-0.435	-0.415	-0.453	-0.445	-0.438
Kurtosis	-0.280	-0.256	-0.397	-0.334	-0.242	-0.186	-0.229	-0.291
Minimum	109.000	111.000	117.000	98.000	115.000	109.000	108.000	108.800
Maximum	262.000	262.000	262.000	262.000	262.000	262.000	262.000	262.000
Range	153.000	151.000	145.000	164.000	147.000	153.000	154.000	153.200
Median	210.000	211.000	210.000	209.000	210.000	210.000	210.000	NA
Mode	224.000	212.000	210.000	217.000	211.000	226.000	214.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-31. Male Sample Summary Statistics for Composite C10: VE + MK + MC + GS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	202.393	201.845	203.105	203.872	203.734	203.321	203.240	202.907
Variance	933.260	898.644	922.374	920.996	898.776	914.639	857.924	917.983
Std. Dev.	30.549	29.977	30.371	30.348	29.980	30.243	29.290	30.298
Skew	-0.141	-0.125	-0.103	-0.118	-0.203	-0.216	-0.121	-0.141
Kurtosis	-0.745	-0.707	-0.789	-0.824	-0.569	-0.668	-0.642	-0.747
Minimum	113.000	115.000	116.000	103.000	117.000	114.000	118.000	112.200
Maximum	264.000	264.000	264.000	264.000	264.000	264.000	268.000	264.000
Range	151.000	149.000	148.000	161.000	147.000	150.000	150.000	151.800
Median	203.000	202.000	203.000	205.000	205.000	204.000	203.000	NA
Mode	209.000	196.000	205.000	189.000	206.000	198.000	200.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-32. Male Sample Summary Statistics for Composite C11: AR + EI + MC + AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	206.688	207.022	208.204	209.053	209.220	208.329	208.475	207.859
Variance	967.740	956.399	926.904	953.958	891.712	910.862	939.690	943.173
Std. Dev.	31.109	30.926	30.445	30.886	29.862	30.180	30.654	30.709
Skew	-0.177	-0.187	-0.193	-0.242	-0.196	-0.234	-0.106	-0.207
Kurtosis	-0.757	-0.767	-0.792	-0.757	-0.693	-0.662	-0.819	-0.747
Minimum	119.000	114.000	119.000	110.000	120.000	117.000	128.000	115.800
Maximum	271.000	271.000	271.000	271.000	271.000	271.000	275.000	271.000
Range	152.000	157.000	152.000	161.000	151.000	154.000	147.000	155.200
Median	208.000	209.000	210.000	211.000	211.000	210.000	209.000	NA
Mode(s)	226.000	215.000	224.000	214.000	195.000	213.000	201.000	NA
						219.000		

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-33. Male Sample Summary Statistics for Composite C12: VE + MK + CS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	149.971	149.450	150.134	150.379	150.251	150.873	150.038	150.161
Variance	383.932	364.147	376.992	394.186	369.309	372.881	371.375	378.428
Std. Dev.	19.574	19.083	19.416	19.854	19.217	19.310	19.271	19.451
Skew	-0.036	0.002	-0.050	-0.061	-0.074	-0.101	-0.142	-0.049
Kurtosis	-0.434	-0.466	-0.545	-0.554	-0.395	-0.372	-0.303	-0.474
Minimum	82.000	88.000	86.000	79.000	85.000	84.000	83.000	83.800
Maximum	200.000	200.000	199.000	200.000	200.000	200.000	202.000	199.800
Range	118.000	112.000	113.000	121.000	115.000	116.000	119.000	116.000
Median	149.000	149.000	150.000	150.000	150.000	151.000	150.000	NA
Mode	148.000	144.000	147.000	139.000	147.000	151.000	142.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-34. Male Sample Summary Statistics for Composite C13: VE + AR + MC  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	152.527	152.139	153.030	153.623	153.553	153.365	153.508	152.937
Variance	563.707	535.752	528.739	548.858	515.743	521.705	504.983	539.752
Std. Dev.	23.743	23.146	22.994	23.428	22.710	22.841	22.472	23.230
Skew	-0.296	-0.276	-0.233	-0.299	-0.281	-0.344	-0.219	-0.290
Kurtosis	-0.737	-0.696	-0.769	-0.736	-0.646	-0.566	-0.706	-0.701
Minimum	83.000	86.000	86.000	78.000	82.000	75.000	82.000	81.600
Maximum	196.000	196.000	196.000	196.000	196.000	196.000	198.000	196.000
Range	113.000	110.000	110.000	118.000	114.000	121.000	116.000	114.400
Median	154.000	154.000	154.000	156.000	155.000	155.000	155.000	NA
Mode	153.000	159.000	153.000	164.000	158.000	166.000	153.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-35. Male Sample Summary Statistics for Composite C14: MC + GS + 2AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	209.959	209.640	210.701	210.067	211.545	210.759	210.487	210.225
Variance	1008.580	1008.801	999.082	979.963	950.239	971.112	1031.128	993.508
Std. Dev.	31.758	31.762	31.608	31.304	30.826	31.163	32.111	31.519
Skew	-0.351	-0.346	-0.332	-0.342	-0.297	-0.315	-0.189	-0.337
Kurtosis	-0.613	-0.625	-0.727	-0.717	-0.680	-0.669	-0.786	-0.670
Minimum	116.000	108.000	120.000	105.000	121.000	117.000	119.000	113.200
Maximum	271.000	271.000	273.000	271.000	271.000	271.000	276.000	271.400
Range	155.000	163.000	153.000	166.000	150.000	154.000	157.000	158.200
Median	213.000	213.000	214.000	213.000	214.000	214.000	213.000	NA
Mode(s)	225.000	221.000	239.000	247.000	239.000	229.000	233.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-36. Male Sample Summary Statistics for Composite C15: NO + CS + VE  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	151.425	151.912	151.349	150.830	151.414	151.280	151.404	151.359
Variance	352.467	332.914	343.030	356.320	349.228	351.126	349.475	347.171
Std. Dev.	18.774	18.246	18.521	18.876	18.688	18.738	18.694	18.631
Skew	-0.402	-0.390	-0.401	-0.411	-0.381	-0.416	-0.556	-0.404
Kurtosis	0.188	0.052	0.098	0.206	0.109	0.300	0.429	0.169
Minimum	69.000	74.000	73.000	68.000	72.000	71.000	65.000	71.000
Maximum	195.000	195.000	194.000	195.000	195.000	195.000	196.000	194.800
Range	126.000	121.000	121.000	127.000	123.000	124.000	131.000	123.800
Median	152.000	153.000	153.000	152.000	152.000	152.000	153.000	NA
Mode	157.000	155.000	153.000	148.000	154.000	152.000	154.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included



Table D-37. Male Sample Summary Statistics for Composite C16: AR + GS + 2MK  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	198.823	198.114	199.274	199.257	200.302	199.814	199.165	199.056
Variance	1016.353	1006.492	998.121	1049.010	945.393	961.497	979.380	1006.295
Std. Dev.	31.880	31.725	31.593	32.388	30.747	31.008	31.295	31.719
Skew	0.175	0.190	0.176	0.141	0.131	0.111	0.264	0.159
Kurtosis	-0.907	-0.892	-0.993	-1.014	-0.881	-0.872	-0.816	-0.936
Minimum	118.000	124.000	128.000	120.000	121.000	122.000	118.000	122.400
Maximum	263.000	263.000	263.000	263.000	263.000	263.000	270.000	263.000
Range	145.000	139.000	135.000	143.000	142.000	141.000	152.000	140.600
Median	196.000	195.000	196.000	197.000	198.000	197.000	195.000	NA
Mode	188.000	182.000	169.000	177.000	190.000	187.000	193.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-38. Male Sample Summary Statistics for Composite C17: VE + MC + AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	156.649	156.238	156.929	156.799	157.325	157.148	157.032	156.753
Variance	528.299	514.054	516.296	524.410	490.835	498.811	509.636	516.374
Std. Dev.	22.985	22.673	22.722	22.900	22.155	22.334	22.575	22.723
Skew	-0.403	-0.404	-0.371	-0.395	-0.363	-0.389	-0.356	-0.392
Kurtosis	-0.555	-0.529	-0.661	-0.636	-0.548	-0.524	-0.603	-0.581
Minimum	86.000	85.000	87.000	76.000	90.000	85.000	87.000	83.800
Maximum	200.000	200.000	201.000	200.000	200.000	200.000	201.000	200.200
Range	114.000	115.000	114.000	124.000	110.000	115.000	114.000	116.400
Median	159.000	159.000	160.000	159.000	159.000	159.000	159.000	NA
Mode	171.000	165.000	168.000	175.000	161.000	174.000	166.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-39. Male Sample Summary Statistics for Composite C18: MK + AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	103.397	102.985	103.238	102.244	103.684	103.534	102.916	103.080
Variance	204.693	207.592	210.442	224.361	192.463	198.024	212.674	209.022
Std. Dev.	14.307	14.408	14.507	14.979	13.873	14.072	14.583	14.455
Skew	-0.043	-0.031	-0.030	-0.033	0.002	-0.020	0.008	-0.031
Kurtosis	-0.642	-0.647	-0.755	-0.767	-0.696	-0.715	-0.699	-0.705
Minimum	63.000	60.000	65.000	62.000	65.000	64.000	63.000	62.800
Maximum	135.000	135.000	136.000	135.000	135.000	135.000	137.000	135.200
Range	72.000	75.000	71.000	73.000	70.000	71.000	74.000	72.400
Median	103.000	103.000	103.000	102.000	104.000	104.000	103.000	NA
Mode	105.000	108.000	106.000	101.000	105.000	108.000	106.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-40. Male Sample Summary Statistics for Composite C19: VE + AR + NO + CS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	201.108	201.434	201.208	200.770	201.623	201.386	201.444	201.181
Variance	670.467	631.917	644.266	675.311	634.016	643.748	643.105	653.142
Std. Dev.	25.893	25.138	25.382	25.987	25.180	25.372	25.359	25.554
Skew	-0.319	-0.295	-0.296	-0.332	-0.294	-0.347	-0.355	-0.318
Kurtosis	-0.182	-0.267	-0.267	-0.199	-0.177	-0.037	-0.036	0.190
Minimum	97.000	107.000	104.000	99.000	106.000	101.000	96.000	101.600
Maximum	259.000	259.000	258.000	258.000	259.000	259.000	262.000	258.600
Range	162.000	152.000	154.000	159.000	153.000	158.000	166.000	157.000
Median	202.000	203.000	202.000	202.000	202.000	202.000	203.000	NA
Mode	205.000	208.000	201.000	196.000	190.000	202.000	209.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-41. Male Sample Summary Statistics for Composite C20: VE + MK + GS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	150.002	149.314	150.375	151.099	150.836	150.755	150.302	150.309
Variance	525.720	500.812	510.339	504.407	507.446	515.115	487.396	511.279
Std. Dev.	22.929	22.379	22.591	22.459	22.527	22.636	22.077	22.611
Skew	-0.086	-0.066	-0.084	-0.100	-0.174	-0.183	-0.126	-0.104
Kurtosis	-0.782	-0.734	-0.796	-0.838	-0.726	-0.724	-0.559	-0.775
Minimum	83.000	83.000	85.000	79.000	85.000	80.000	82.000	82.000
Maximum	194.000	194.000	194.000	194.000	194.000	194.000	198.000	194.000
Range	111.000	111.000	109.000	115.000	109.000	114.000	116.000	112.000
Median	150.000	149.000	150.000	151.000	151.000	151.000	150.000	NA
Mode	145.000	141.000	138.000	162.000	160.000	153.000	152.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-42. Male Sample Summary Statistics for Composite C21: AR + MC + AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	155.879	155.675	156.348	155.829	157.087	156.560	156.543	156.058
Variance	561.813	555.553	536.210	561.192	509.519	516.156	545.004	546.185
Std. Dev.	23.703	23.570	23.156	23.689	22.573	22.719	23.343	23.367
Skew	-0.277	-0.279	-0.221	-0.273	-0.205	-0.264	-0.095	-0.263
Kurtosis	-0.705	-0.691	-0.809	-0.765	-0.717	-0.647	-0.861	-0.723
Minimum	88.000	86.000	90.000	84.000	90.000	89.000	94.000	87.400
Maximum	202.000	202.000	203.000	202.000	202.000	202.000	205.000	202.200
Range	114.000	116.000	113.000	118.000	112.000	113.000	111.000	114.800
Median	158.000	157.000	158.000	158.000	158.000	158.000	157.000	NA
Mode	163.000	168.000	165.000	159.000	163.000	160.000	172.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-43. Female Sample Summary Statistics for Composite C1: VE + AR  
Formed From 5-Form Average Equating Tables

Statistic	Form number						
	11a	11b	12a*	12b	13a	13b	13c(8a)** Average***
Mean	99.380	98.367	100.006	99.648	99.838	99.580	98.876
Variance	210.831	207.327	195.429	209.574	181.981	199.258	194.416
Std. Dev.	14.520	14.399	13.980	14.477	13.490	14.116	13.943
Skew	-0.172	-0.066	-0.145	-0.165	-0.177	-0.258	-0.168
Kurtosis	-0.712	-0.780	-0.771	-0.768	-0.539	-0.555	-0.552
Minimum	51.000	57.000	57.000	58.000	57.000	53.000	58.000
Maximum	126.000	126.000	126.000	126.000	126.000	126.000	127.000
Range	75.000	69.000	69.000	68.000	69.000	73.000	69.000
Median	100.000	98.000	100.000	100.000	100.000	100.000	99.000
Mode	103.000	95.000	103.000	97.000	100.000	100.000	101.000

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-44. Female Sample Summary Statistics for Composite C2: MK + EI + AS + GS  
Formed From 5-Form Average Equating Tables

Statistic	Form number						
	11a	11b	12a*	12b	13a	13b	13c(8a)** Average***
Mean	184.578	185.063	184.391	184.807	185.637	184.981	185.988
Variance	583.708	602.654	616.581	604.121	571.590	613.639	605.734
Std. Dev.	24.160	24.549	24.831	24.579	23.908	24.772	24.612
Skew	0.398	0.436	0.405	0.415	0.274	0.356	0.322
Kurtosis	-0.278	-0.280	-0.397	-0.418	-0.504	-0.398	-0.354
Minimum	109.000	123.000	124.000	127.000	129.000	121.000	123.000
Maximum	266.000	262.000	264.000	259.000	262.000	260.000	269.000
Range	157.000	139.000	140.000	132.000	133.000	139.000	146.000
Median	182.000	182.000	182.000	182.000	184.000	183.000	184.000
Mode	174.000	181.000	172.000	178.000	176.000	168.000	185.000

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-45. Female Sample Summary Statistics for Composite C3: AR + MK + EI + GS  
Formed From 5-Form Average Equating Tables

Statistic	Form number						
	11a	11b	12a*	12b	13a	13b	13c(8a)** Average***
Mean	188.961	189.345	189.632	190.370	191.321	189.982	189.642
Variance	694.740	713.700	712.203	715.821	702.179	752.905	703.271
Std. Dev.	26.358	26.715	26.687	26.755	26.499	27.439	26.519
Skew	0.345	0.417	0.291	0.306	0.213	0.228	0.324
Kurtosis	-0.447	-0.392	-0.646	-0.628	-0.637	-0.549	-0.469
Minimum	105.000	123.000	123.000	125.000	128.000	124.000	124.000
Maximum	264.000	265.000	264.000	260.000	262.000	260.000	264.000
Range	159.000	142.000	141.000	135.000	134.000	136.000	140.000
Median	186.000	186.000	187.000	188.000	190.000	188.000	187.000
Mode	182.000	180.000	187.000	180.000	185.000	181.000	181.000

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-46. Female Sample Summary Statistics for Composite C4: AR + MK + VE  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	148.027	147.299	148.876	147.648	148.961	148.545	148.328	148.079
Variance	432.170	427.409	424.264	459.668	389.700	416.449	420.727	431.992
Std. Dev.	20.789	20.674	20.598	21.440	19.741	20.407	20.512	20.782
Skew	0.075	0.166	0.057	0.082	0.073	0.050	0.039	0.088
Kurtosis	-0.683	-0.692	-0.835	-0.807	-0.677	-0.597	-0.622	-0.723
Minimum	83.000	93.000	90.000	93.000	98.000	91.000	96.000	90.000
Maximum	193.000	193.000	193.000	193.000	193.000	193.000	195.000	193.000
Range	110.000	100.000	103.000	100.000	95.000	102.000	99.000	103.000
Median	147.000	146.000	148.000	146.000	148.000	148.000	148.000	NA
Mode(s)	140.000 143.000	131.000 136.000	146.000	137.000	153.000	146.000	144.000 148.000 158.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

Table D-47. Female Sample Summary Statistics for Composite C5: NU + AS + MC + EI  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	187.771	189.839	187.404	186.978	188.774	187.655	188.945	187.929
Variance	486.315	492.416	498.231	505.203	443.022	477.787	481.193	491.990
Std. Dev.	22.053	22.190	22.321	22.477	21.048	21.858	21.936	22.180
Skew	0.207	0.205	0.230	0.227	0.086	0.152	0.178	0.204
Kurtosis	-0.174	-0.154	-0.247	-0.276	-0.235	-0.210	-0.163	-0.212
Minimum	109.000	121.000	127.000	124.000	118.000	121.000	122.000	120.400
Maximum	264.000	259.000	263.000	257.000	259.000	263.000	264.000	261.200
Range	155.000	138.000	136.000	133.000	141.000	142.000	142.000	140.800
Median	187.000	188.000	186.000	185.000	188.000	187.000	188.000	NA
Mode(s)	172.000 177.000	180.000	185.000	173.000	181.000	192.000	187.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-48. Female Sample Summary Statistics for Composite C6: AR + AS + MC + VE  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	188.852	187.900	189.630	188.262	189.377	189.156	189.017	188.760
Variance	697.410	709.418	644.287	684.611	534.291	577.595	608.917	662.664
Std. Dev.	26.409	26.635	25.383	26.165	23.115	24.033	24.676	25.725
Skew	0.068	0.118	0.195	0.119	0.079	0.102	0.129	0.120
Kurtosis	-0.674	-0.752	-0.679	-0.757	-0.484	-0.512	-0.576	-0.675
Minimum	117.000	119.000	124.000	123.000	125.000	116.000	124.000	119.800
Maximum	259.000	256.000	259.000	260.000	257.000	256.000	259.000	258.000
Range	142.000	137.000	135.000	137.000	132.000	140.000	135.000	138.200
Median	188.000	186.000	188.000	187.000	188.000	188.000	188.000	NA
Mode(s)	185.000 204.000	180.000	172.000	182.000	179.000	189.000	189.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-49. Female Sample Summary Statistics for Composite C7: CS + AR + MC + AS**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	191.948	191.721	192.918	191.789	193.130	193.070	192.586	192.289
Variance	583.759	597.576	538.996	590.484	449.712	482.221	512.103	558.607
Std. Dev.	24.161	24.445	23.216	24.300	21.206	21.960	22.630	23.616
Skew	0.109	0.128	0.210	0.130	0.112	0.091	0.232	0.134
Kurtosis	-0.413	-0.489	-0.414	-0.494	-0.283	-0.222	-0.317	-0.406
Minimum	115.000	122.000	130.000	120.000	131.000	122.000	123.000	121.800
Maximum	258.000	265.000	258.000	260.000	269.000	260.000	267.000	262.200
Range	143.000	143.000	138.000	140.000	138.000	138.000	144.000	140.400
Median	191.000	191.000	191.000	190.000	192.000	193.000	191.000	NA
Mode	184.000	180.000	189.000	180.000	196.000	190.000	175.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-50. Female Sample Summary Statistics for Composite C8: AR + CS + MC + MK**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	196.929	197.306	198.287	197.051	198.738	198.447	197.640	197.604
Variance	650.173	669.855	630.787	694.428	576.742	609.230	604.373	650.895
Std. Dev.	25.498	25.882	25.115	26.352	24.015	24.683	24.584	25.506
Skew	0.163	0.197	0.181	0.164	0.128	0.155	0.237	0.172
Kurtosis	-0.430	-0.467	-0.536	-0.539	-0.460	-0.338	-0.461	-0.462
Minimum	116.000	126.000	126.000	124.000	125.000	124.000	131.000	123.200
Maximum	271.000	269.000	268.000	268.000	269.000	269.000	267.000	269.000
Range	155.000	143.000	142.000	144.000	144.000	145.000	136.000	145.800
Median	195.000	195.000	196.000	195.000	198.000	197.000	196.000	NA
Mode(s)	183.000	194.000	194.000	188.000	192.000	196.000	188.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-51. Female Sample Summary Statistics for Composite C9: NO + AS + MC + VE**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	194.632	195.615	194.034	192.441	193.859	193.460	194.792	194.036
Variance	509.424	509.329	503.091	513.117	426.414	465.588	473.388	500.110
Std. Dev.	22.570	22.568	22.430	22.652	20.650	21.577	21.757	22.359
Skew	-0.133	-0.106	-0.006	-0.032	-0.160	-0.115	-0.179	-0.078
Kurtosis	-0.328	-0.403	-0.433	-0.428	-0.192	-0.176	-0.193	-0.354
Minimum	110.000	120.000	126.000	123.000	119.000	112.000	121.000	118.200
Maximum	257.000	253.000	257.000	252.000	256.000	256.000	255.000	255.000
Range	147.000	133.000	131.000	129.000	137.000	144.000	134.000	136.800
Median	195.000	195.000	194.000	192.000	194.000	193.000	196.000	NA
Mode	196.000	189.000	187.000	184.000	186.000	190.000	199.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-52. Female Sample Summary Statistics for Composite C10: VE + MK + MC + GS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	193.578	193.682	193.643	193.407	193.232	193.192	193.180	193.500
Variance	715.567	743.743	715.844	699.889	696.283	729.915	670.365	720.992
Std. Dev.	26.750	27.272	26.755	26.455	26.387	27.017	25.891	26.850
Skew	0.071	0.130	0.198	0.188	0.049	0.120	0.077	0.141
Kurtosis	-0.515	-0.651	-0.640	-0.670	-0.590	-0.578	-0.528	-0.611
Minimum	114.000	124.000	122.000	127.000	123.000	116.000	123.000	120.600
Maximum	263.000	263.000	263.000	259.000	263.000	262.000	264.000	262.000
Range	149.000	139.000	141.000	132.000	140.000	146.000	141.000	141.400
Median	193.000	192.000	191.000	191.000	192.000	192.000	192.000	NA
Mode	194.000	185.000	170.000	179.000	189.000	177.000	184.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-53. Female Sample Summary Statistics for Composite C11: AR + EI + MC + AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	181.990	182.124	183.001	182.799	184.292	183.351	183.170	182.653
Variance	665.980	683.583	639.987	673.726	549.898	590.737	620.840	650.803
Std. Dev.	25.807	26.145	25.298	25.956	23.450	24.305	24.917	25.502
Skew	0.369	0.393	0.408	0.333	0.281	0.305	0.404	0.362
Kurtosis	-0.467	-0.425	-0.442	-0.551	-0.401	-0.382	-0.335	-0.453
Minimum	116.000	122.000	126.000	124.000	124.000	125.000	126.000	122.600
Maximum	266.000	265.000	265.000	265.000	261.000	263.000	268.000	264.800
Range	150.000	143.000	139.000	141.000	137.000	138.000	142.000	142.200
Median	179.000	179.000	180.000	181.000	182.000	182.000	181.000	NA
Mode(s)	167.000	171.000	160.000	169.000	167.000	185.000	170.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-54. Female Sample Summary Statistics for Composite C12: VE + MK + CS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	154.404	154.240	154.686	154.221	154.153	154.884	154.670	154.487
Variance	308.904	307.374	306.494	327.560	301.367	323.975	319.922	314.861
Std. Dev.	17.576	17.532	17.507	18.099	17.360	17.999	17.886	17.743
Skew	-0.131	-0.051	-0.151	-0.085	-0.097	-0.107	-0.213	-0.105
Kurtosis	-0.109	-0.266	-0.328	-0.333	-0.300	-0.118	-0.196	-0.231
Minimum	78.000	88.000	94.000	90.000	91.000	90.000	91.000	88.000
Maximum	200.000	199.000	198.000	198.000	199.000	200.000	199.000	199.000
Range	122.000	111.000	104.000	108.000	108.000	110.000	108.000	111.000
Median	154.000	154.000	155.000	154.000	154.000	155.000	155.000	NA
Mode	152.000	146.000	157.000	152.000	157.000	159.000	160.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-55. Female Sample Summary Statistics for Composite C13: VE + AR + MC**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	145.185	144.552	146.129	145.524	145.862	145.575	144.619	145.393
Variance	453.181	465.407	418.698	442.106	386.397	411.981	396.401	438.275
Std. Dev.	21.288	21.573	20.462	21.026	19.657	20.297	19.910	20.929
Skew	-0.018	0.047	0.072	0.021	-0.036	-0.048	0.059	0.015
Kurtosis	-0.702	0.773	-0.714	-0.776	-0.531	-0.558	-0.607	-0.705
Minimum	86.000	87.000	87.000	91.000	88.000	80.000	91.000	86.200
Maximum	195.000	194.000	195.000	195.000	195.000	194.000	196.000	194.600
Range	109.000	107.000	108.000	104.000	107.000	114.000	105.000	108.400
Median	145.000	144.000	145.000	144.000	145.000	146.000	144.000	NA
Mode(s)	142.000	134.000	142.000	144.000	141.000	146.000	139.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-56. Female Sample Summary Statistics for Composite C14: MC + GS + 2AS**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	180.934	180.702	180.511	179.536	180.499	180.390	181.700	180.415
Variance	693.466	715.800	671.514	668.779	526.984	566.816	625.058	663.275
Std. Dev.	26.334	26.754	25.914	25.861	22.956	23.808	25.001	25.734
Skew	0.219	0.241	0.471	0.397	0.311	0.441	0.368	0.354
Kurtosis	-0.477	-0.549	-0.386	-0.494	-0.214	-0.179	-0.264	-0.417
Minimum	114.000	113.000	112.000	124.000	123.000	118.000	111.000	116.200
Maximum	264.000	259.000	263.000	262.000	261.000	259.000	267.000	261.400
Range	150.000	146.000	151.000	138.000	138.000	141.000	146.000	145.200
Median	179.000	179.000	177.000	177.000	179.000	178.000	180.000	NA
Mode(s)	161.000	161.000	170.000	155.000	171.000	177.000	186.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

**Table D-57. Female Sample Summary Statistics for Composite C15: NO + CS + VE**  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	159.587	160.646	158.961	158.702	158.711	158.813	159.044	159.342
Variance	287.128	275.908	290.766	302.147	290.893	322.489	297.491	295.688
Std. Dev.	16.945	16.610	17.052	17.382	17.056	17.958	17.248	17.189
Skew	-0.583	-0.651	-0.558	-0.564	-0.504	-0.614	-0.658	-0.594
Kurtosis	0.690	0.680	0.303	0.346	0.172	0.538	0.464	0.511
Minimum	66.000	72.000	87.000	79.000	92.000	78.000	81.000	76.400
Maximum	195.000	195.000	193.000	194.000	195.000	195.000	196.000	194.400
Range	129.000	123.000	106.000	115.000	103.000	117.000	115.000	118.000
Median	161.000	162.000	161.000	160.000	160.000	160.000	161.000	NA
Mode	164.000	173.000	156.000	160.000	157.000	159.000	163.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-58. Female Sample Summary Statistics for Composite C16: AR + GS + 2MK  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	193.139	193.310	193.868	192.485	194.891	193.738	194.117	193.308
Variance	823.454	833.676	830.810	867.498	774.040	812.994	799.525	833.686
Std. Dev.	28.696	28.873	28.824	29.453	27.822	28.513	28.256	28.872
Skew	0.320	0.367	0.272	0.313	0.256	0.319	0.328	0.318
Kurtosis	-0.589	-0.564	-0.795	-0.755	-0.698	-0.581	-0.590	-0.657
Minimum	114.000	131.000	127.000	131.000	129.000	127.000	132.000	126.000
Maximum	263.000	263.000	263.000	263.000	263.000	263.000	270.000	263.000
Range	149.000	132.000	136.000	132.000	134.000	136.000	138.000	137.000
Median	190.000	190.000	191.000	189.000	193.000	191.000	191.000	NA
Mode(s)	182.000	177.000 180.000 190.000	171.000	166.000	176.000	172.000	195.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-59. Female Sample Summary Statistics for Composite C17: VE + MC + AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	140.802	140.276	140.889	139.961	140.178	140.573	140.966	140.500
Variance	381.089	392.699	359.532	371.631	297.061	318.349	342.711	364.660
Std. Dev.	19.521	19.817	18.961	19.278	17.235	17.842	18.512	19.084
Skew	0.036	0.085	0.215	0.146	0.064	0.150	0.061	0.126
Kurtosis	-0.589	-0.708	-0.588	-0.685	-0.379	-0.459	-0.529	-0.606
Minimum	87.000	87.000	86.000	95.000	91.000	86.000	90.000	88.200
Maximum	196.000	192.000	196.000	196.000	194.000	194.000	193.000	194.800
Range	109.000	105.000	110.000	101.000	103.000	108.000	103.000	106.600
Median	141.000	140.000	139.000	139.000	140.000	140.000	141.000	NA
Mode(s)	133.000	132.000	133.000	117.000	137.000	130.000 139.000 140.000 142.000	155.000	NA

\* Composite formed from corresponding individual linear equating table

Table D-60. Female Sample Summary Statistics for Composite C18: MK + AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	92.314	92.279	92.372	90.738	92.638	92.538	93.851	92.048
Variance	151.323	151.318	157.836	170.832	121.131	129.147	151.089	152.091
Std. Dev.	12.301	12.301	12.563	13.070	11.006	11.364	12.292	12.320
Skew	0.391	0.372	0.404	0.406	0.394	0.537	0.281	0.422
Kurtosis	-0.350	-0.434	-0.397	-0.417	-0.217	-0.161	-0.474	-0.352
Minimum	62.000	63.000	62.000	62.000	65.000	67.000	63.000	63.200
Maximum	132.000	133.000	131.000	130.000	132.000	129.000	135.000	131.000
Range	70.000	70.000	69.000	68.000	67.000	62.000	72.000	67.800
Median	91.000	91.000	91.000	89.000	91.000	91.000	93.000	NA
Mode(s)	93.000	91.000	91.000	91.000	91.000	91.000	83.000 88.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included



Table D-61. Female Sample Summary Statistics for Composite C19: VE + AR + NO + CS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	207.636	208.270	207.703	207.003	207.910	207.396	207.095	207.602
Variance	542.270	519.820	537.289	579.003	510.956	570.711	530.936	549.819
Std. Dev.	23.287	22.800	23.179	24.062	22.604	23.890	23.042	23.444
Skew	-0.389	-0.379	-0.359	-0.341	-0.346	-0.457	-0.399	-0.385
Kurtosis	0.129	0.064	-0.133	-0.156	-0.103	0.192	-0.024	0.019
Minimum	93.000	111.000	121.000	110.000	130.000	108.000	112.000	108.600
Maximum	259.000	259.000	257.000	258.000	258.000	259.000	261.000	258.400
Range	166.000	148.000	136.000	148.000	128.000	151.000	149.000	149.800
Median	209.000	209.000	209.000	208.000	209.000	209.000	208.000	NA
Mode(s)	198.000 214.000	207.000	219.000	198.000	224.000	220.000	202.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-62. Female Sample Summary Statistics for Composite C20: VE + MK + GS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	147.773	147.496	147.520	147.531	147.207	147.205	147.437	147.505
Variance	411.413	417.507	416.253	402.263	419.953	439.418	405.175	417.371
Std. Dev.	20.283	20.433	20.402	20.056	20.493	20.962	20.129	20.427
Skew	-0.010	0.069	0.081	0.085	-0.009	0.027	-0.071	0.050
Kurtosis	-0.507	-0.624	-0.722	-0.712	-0.671	-0.623	-0.456	-0.638
Minimum	79.000	91.000	91.000	94.000	93.000	87.000	88.000	88.400
Maximum	194.000	194.000	194.000	192.000	194.000	194.000	198.000	193.600
Range	115.000	103.000	103.000	98.000	101.000	107.000	110.000	105.200
Median	148.000	147.000	147.000	147.000	147.000	146.000	147.000	NA
Mode(s)	145.000 151.000	146.000	148.000	140.000	138.000	137.000	142.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included

Table D-63. Female Sample Summary Statistics for Composite C21: AR + MC + AS  
Formed From 5-Form Average Equating Tables

Statistic	Form number							Average***
	11a	11b	12a*	12b	13a	13b	13c(8a)**	
Mean	137.521	137.157	138.366	136.915	138.738	138.150	138.193	137.622
Variance	424.427	434.214	391.492	424.331	305.550	328.464	360.921	400.586
Std. Dev.	20.602	20.838	19.786	20.599	17.480	18.124	18.998	19.990
Skew	0.240	0.243	0.370	0.255	0.267	0.283	0.375	0.278
Kurtosis	-0.624	-0.655	-0.555	-0.689	-0.398	-0.386	-0.428	-0.582
Minimum	84.000	88.000	94.000	92.000	95.000	91.000	96.000	89.800
Maximum	197.000	196.000	198.000	198.000	198.000	194.000	199.000	196.600
Range	113.000	108.000	104.000	106.000	103.000	103.000	103.000	106.800
Median	136.000	136.000	136.000	135.000	137.000	137.000	136.000	NA
Mode(s)	128.000	116.000 129.000	135.000	124.000	138.000	130.000	137.000	NA

\* Composite formed from corresponding individual linear equating table

\*\* Not equated

\*\*\* Average of five new form values - 12a and 13c not included